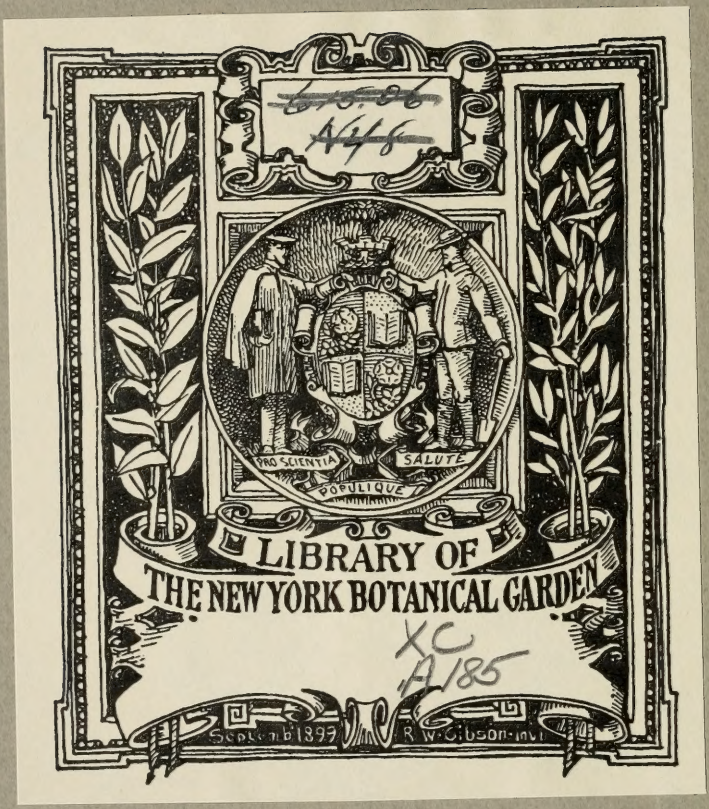
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VOL. XVII. JANUARY, 1910. No. 1.

THE Alumni Journal

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CHAS. A. LOTZ. PH.G., EDITOR CURT. P. WIMMER, PHAR D., ASSOCIATE EDITOR

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EDITORIAL

May the New Year bring you Health, Prosperity and Happiness. May you have laudable ambitions, energy to work for them and the good fortune to win them.

May prosperity increase for our Alma Mater. May she continue to be ahead in the van as an educational force, and ever remain the pride of her Graduates.

And our Alumni Association! What can I wish for it? Everything that is best.

If we judge the prospect by the retrospect, the forecast is splendid.

Our recent dinner, so thoroughly enjoyed by all present, and since commented upon with enthusiasm, marks an epoch in our Association, and I trust the force of that annual event will continue to be recognized.

In a few days our Annual Reception will be held in the Harlem Casino and it promises to be as enjoyable as the Dinner.

Your Association has taken an interest in Pharmaceutical Legislation, and its committee is taking part in the conference of Pharmaceutical Societies for the purpose of framing new and necessary legislation regulating the practice of Pharmacy.

The Committee on Papers and Queries is preparing an interesting program for the coming meetings; papers will be read and debates held on live pharmaceutical topics.

I do not alone *wish* increased prosperity to the Association.—I *prophecy* it—I see it coming. I see the present workers, encouraged by success;—I see our old Graduates returning and taking up the work with renewed zeal and vigor.

I see Father Time hoarding up watever good has been done in the passing year leaving a substantial credit for us with the New.

HIERONIMUS A. HEROLD,
New York, Dec. 31st, 1909. President of the Alumni Ass'n.

THE CHEMISTRY OF THE SOLANACEOUS ALKALOIDS*

By CURT P. WIMMER, A. M., Phar. D.

Alkaloids which are obtained from plants belonging to the family Solanacae are termed briefly solanaceous alkaloids. The more important medicinal plants belonging to this family are:

1) Atropa Belladonna or Deadly Nightshade,
2) Hyoscyamus Niger or Henbane,
3) Datura Stramonium or Thornapple,
4) Scopola Carniolica or Scopola Belladonna, and
5) Capsicum Fastigiatum or Cayenne Pepper.

The number of different alkaloids in these plants is of course very large, and the composition and chemistry of many of them is, as yet, not known.

Research work is, however, being done right along and no doubt before many years, we will be in possession of complete knowledge of the constitution of all of the alkaloids. It is only a little more than three years that the complete synthesis of Atropine has been accomplished. The amount of work, painstaking research and patience, necessary to do this, was simple tremendous, and the synthesis of Atropine may truly be called one of the "classic" accomplishments of organic chemisrry.

Atropine is the most important of solanaceous alkaloids and, therefore, its chemistry will be reviewed first of all.

THE CHEMISTRY OF ATROPINE.

This alkaloids was discovered in the first half of the last century by a pharmacist named Mein. Liebig's attention was called to the new

*Read in Organic Chemical Conference, Columbia University.

discovery and he determined the formula correctly $C_{17}H_{23}NO_3$. In 1864, a chemist named Lotten announced, that he had succeeded in splitting up the alkaloid into an acid and an alcohol and that, therefore, Atropine was to be regarded as an ester which readily undergoes saponification. The change could be expressed by the following equation:

$$\underset{\text{Atropine}}{C_{17}H_{23}NO_3} + H_2O = \underset{\text{Tropine}}{C_8H_{15}NO} + \underset{\text{Tropic Acid}}{C_9H_{10}O_3}$$

The examination of the physical properties resulted in the following data: Atropine is optically inactive, it crystallises in prisms, melts at 116°C. The taste is bitter and acrid. The alkaloid dissolves easily in alcohol and chloroform, it is difficulty soluble in ether and benzene and not soluble in cold water. It forms salts readily.

The constitution of tropic acid was readily determined. On oxidation benzoic acid was formed, showing the presence of a benzene ring with an aliphatic side-group. KOH and heat applied to tropic acid gave phenylacetic and formic acids. Based upon these facts the formula of Tropic Acid was established as

$C_6H_5-CH\langle^{CH_2OH}_{COOH}$ A–Phenyl hydracrylic acid.

Acrylic acid: $CH_2 \| CH - COOH$

Hydracrylic acid: $CH_2OH - CH_2 - COOH$

Phenylhydracrylic acid: $CH_2OH - CH(C_6H_5) - COOH$

It may also be regarded as an A—phenyl B—oxy propionic acid:

Propionic acid: $CH_3 - CH_2 - COOH$

A—phenyl propionic acid: $CH_3 - CH(C_6H_5) - COOH$

A—phenyl B—oxy propionic acid: $CH_2OH - CH(C_6H_5) - COOH$

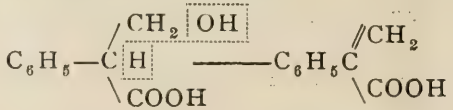
The acid contains one asymetric carbon atom:

$$C_6H_5-\overset{\overset{CH_2OH}{|}}{\underset{COOH}{\underset{|}{C}}}-H$$

and one optically inactive, and two optically active acids have actually been obtained.

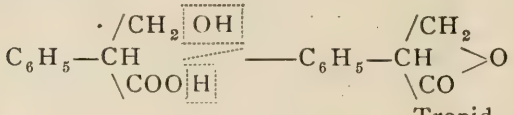
Under the influence of dehydrating agents, tropic acid loses water and forms, according to the agent used,:

a) Boiling with Ba $(OH)_2$ at 130°C:



Atropic acid.

b) Heating alone to 160°C:

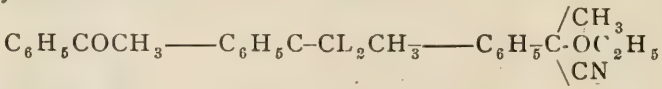


Tropid.

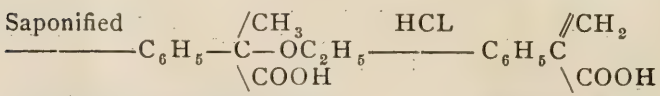
c) Heating with HCl at 140_0 gave $C_{18}H_{16}O_4$ Isatropic acid, a polymeric form of Tropic acid.

The synthesis of tropic acid, first carried out by Ladenburg and Rügenheimer, confirmed the correctness of the formula.

The synthesis is carried out as follows:



Acetophenon. Chloraceto-phenon. Nitril of Atrolactic Acid Ethyl Ether.



Atrolactic Acid Ethyl Ether. Atropic Acid.

(*To be Coutinued.*)

OBITUARY

We mourn the loss of one of our life members, James Miller, class 1876, who died at his home, 631 53rd Street, Brooklyn, N. Y., on December 27th, 1909. Peace to his ashes.

CLASS NOTES.

Michael Rosenblum '09, the candy kind, moved from Dallins, 108th Street and Amsterdam Avenue, to the new store on 115th Street and Amsterdam Avenue, where he is still joshing the girls.

Maurice Ackerman is at Hudnuts on Broadway where he has to step lively.

Alex. Cohen is back with F. O. Collins, 3rd Avenue and 14th Street, where he now has the senior position. He is always glad to see one of the boys, when they drop in, which is quite often.

Sammy Burnstein is still with Ricksecker Bros., on 117th Street and Lenox Avenue. Sammy says he's got a cinch up there, and every body believes.

ALUMNI BALL

THURSDAY EVENING, JANUARY 13th, 1910, AT HARLEM CASINO, 124th STREET AND 7th AVENUE, AT 9 P. M.

On the above date, the Association will held its 15th Annual Ball.

As all preparation have been completed, it is earnestly hoped by the Ball Committee, that the Alumni and their friends will attend in a goodly number.

You will note, that, this year, the Committee has made a change in the hall. Harlem Casino has been selected. Let us hope that our friends will show their appreciation of this change. Another advantage gained for those participants, who are fond of a good "Nip" or "Bite" during or after the Ball, will also be realized, as the Harlem Casino furnishes first class meals, Table d'Hôte or à la carte at any time.

As for music, Crowley's Eighth Regiment Band speaks for itself. The ball room is one of the best in New York, a splendid floor of good size.

Besides having 18 boxes beautifully decorated the main room will be artistically draped with our college colors and banners.

Our "Junior Member" of the Association and Honorary President, Mr. Ewens McIntyre, class of '47, is Chairman of the Ball Committee, with Mr. Wm. H. Ebbitt as Vice-Chairman.

You are cordially invited to attend and bring your friends. Help to make the 15th Annual the "best ever."

Tickets are now on sale at the office of the College or may be had from any member of the Committee at $1.50, admitting gentleman and ladies.

FREDERICK A. LESLIE,
Secretary, Ball Committee.

REPORT OF COMMITTEE ON STANDARDS AND TESTS OF THE UNITED STATES PHARMACOPOEIA AND NATIONAL FORMULARY.*

(*Continued from Dec. 1909*).

To summarize, then your committee recommends:—

That the Committee on Revision of the United States Pharmacopœia shall consist solely of acknowledged experts who will agree to devote a sufficient portion of their time to the prompt and satisfactory performance of their duties and that the members of this committee receive adequate compensation for the services they render.

That public notice of all proposals for changes and tests be given in the pharmaceutical press before adoption.

That standards of chemicals while excluding or reducing to a minimum impurities considered harmful shall permit a small given percentage of a harmless constituent when its elimination would add unduly to the cost.

That standards for drugs of vegetable origin be based only on fair average qualities and formulas for preparations be adjusted to same.

That the legal character of the United States Pharmacopœia demands the most careful scrutiny of the language used in describing both standards and tests.

That members of the Association who have been appointed delegates to the Pharmacopœial Convention form themselves into a committee which shall present the views of this Association to that body and pledge the members of the Association to the hearty support of all measures taken to secure in the ninth revision of the United States Pharmacopœia a more perfect and reliable standard of excellence than has been hitherto attainable.

Respectfully submitted,

Donald McKesson,
C. M. Kline,
Otto P. Amend,
Wm. Jay Schieffelin,
Thos. F. Main,
Chairman.

*Read at the recent convention of N. A. W. D.

President Carter:—Gentlemen, you have heard this interesting report presented by Mr. Main. Is there any discussion on it?

M. N. Kline, Philadelphia:—I would like to say a word about this report, which is excellent and very valuable. I want to say a word or two especially referring to the objection of the National Formulary being made a legal standard. Of course, as every one here knows, it has proven to be full of trouble and annoyance, and yet at the same time it has been of considerable benefit. The annoyance and trouble has been mitigated by the manner in which it appears in the national law, because you are all familiar with the fact that, while articles put up under names used in the National Formulary, if without any other statement, are required to be of that strength and quality, deviations may be made provided difference in strength or quality is mentioned on the label.

There has been considerable pressure, it has come to my notice, from two sides—one of our associate members wrote to me requesting that, as chairman of the Committee on Legislation, I recommend in my report to this Association that all reference to this National Formulary should be taken out of the Pure Food and Drugs Law. That is one extreme, which perhaps I am safe in saying the majority of us are hardly in accord with. I certainly was not and there will be no such recommendation in the report.

The other extreme comes from the idealists in pharmacy, of whom I am glad we have some, who are ideal and far from practicable, but in the great State of Pennsylvania, which leads in everything, we have these idealists and some of them have certainly got a degree of enthusiasm that you can hardly find matched anywhere else, and they urge that in the State legislation there should be no allowance provision made whatever for deviation from the U. S. P. or N. F. Now, here is where our trouble comes in. It is not worth while to discuss the imperfections of the National Formulary, because it was hastily thrown together and certainly needs revision, but I would have been glad if this report had emphasized the important fact that if the National Formulary is to stand under this law, steps should be taken by which it would be revised, not in the manner in which it is revised now, but certainly in some way by which representatives both of the medical profession and pharmaceutical profession should be united in some body or some committee having to do with its revision. As it stands now, you know what has happened.

In the State of Pennsylvania, where these eminent pharmacists and idealists happen to be largely, they are trying to rule that under our State law, which is precisely in the language of the Federal law, the articles which deviate from the U. S. P. or the N. F. must be designated in language which calls attention in an objectionable way to that difference; in other words, they want to provide that articles sold under names which occur in the N. F— and, of course, you know that a very large number of compounds that are commonly sold are found in that volume— that where they differ it must be stated on the label in these words: "This article differs from the National Formulary by 10 Per Cent.," less or more, as the case may be, so that there is a tendency, and this will be impressed upon the Congress sooner or later, to amend the National Pure Food and Drugs Law to prevent any possible deviation from the formularies in strength of articles put up under the formularies and recognized in this work.

The suggestion in the report with reference to the United States Pharmacopœia are excellent, but there is no suggestion, as I gather from the reading of the report, with regard to the other matter at all, and I believe that requires more attention. I do not know how much influence we would have, because I want to say, in going along, that unfortunately another idea has been very seduously cultivated in the literature which appears in some of the journals which some of us have to read, and that is, whatever there may be of virtue and integrity and honesty in the retail pharmacists, there is very little worth speaking of in the wholesale manufacturer. He is to be suspected of manipulating things and we must take some measures to stop it. We all know that is not true, we all know there is no foundation for it, and yet there is this pressure for legislation, and the making of regulations under this legislation, which needs attention, and which I think, in connection with a report like this, it is well for me at least to say this much about it. I feel that the committee has made excellent suggestions, and I feel that the report will be received by the Committee on Revision, the present members and those who may be elected, with the respect which it deserves coming from this body, and I am sorry if it is so—I am not sure that it is so—that this body is not legally qualified to elect delegates to the convention which is to elect the members of the Committee on Revision. Professor Rem-

ington, chairman of the Revision Committee, said to me a few days ago, in talking over the question, that he thought this organization ought to elect delegates and take chances of their being recognized.

Mr. Main:—I would say that it is distinctly stated in the Pharmacopœia that the only delegates to be admitted are those from incorporated societies which have been incorporated for at least five years before the convention. I really do not know how the convention would be able to go beyond that—of course, they might—but it is very plainly, and I think legally, stated.

In reference to the National Formulary, I would say that since the existence of our committee we have never had called to our attention by a single member of this association anything in connection with the National Formulary. It has never been mentioned before. The only reason for the committee putting in the reference to the National Formulary at this time was on account of the attention drawn to it by Professor Oldberg's remarks at the last meeting of the American Pharmaceutical Association, of which he was president. I would like to add that further on in his report he intimates that if the National Formulary were to be continued as a legal standard that the control of it would probably pass from the American Pharmaceutical Association, and that it would in some way be published as a supplement to the United States Pharmacopœia. Of course, that is only the opinion of one man. It was differed from to a very great extent at the meeting of the association. But Professor Oldberg is a careful thinker, and it was the consensus of opinion of your committee that the truth of his remarks would become more apparent as time elapsed.

Dr. Schieffelin:—As a member of the committee, I want to say that I think Mr. Kine's criticism is very well deserved. The report quotes from Professor Oldberg, and states that the Committee agrees with him, and points out a certain mistake, presumptively made by Congress, and makes no suggestion whatever as to the remedy. That is an omission, and I trust that we will soon have some specific correction to recommend. It may be well to recommend that a National Board of Health be created and that the whole matter be placed in the hands of that department and have the National Commissioner of Health a Secretary in the Cabinet—something to that effect has been recently mooted in

the medical and drug papers and also in the Washington papers. I do not think the time is quite ripe to make such a recommendation but the matter is well worthy of the consideration of our Association.

President Carter:—If there is no further discussion, the report will be referred to the Board of Control.

REPORT OF BOARD OF CONTROL ON STANDARDS AND TESTS.

The work of this committee is of the highest importance and has been performed in so thorough and able a manner that its conclusions are incontrovertible, and the advisability of carrying out its recommendations is certainly evident and requires no further comment from the Board of Control. We offer these recommendations in the form of the following resolutions:—

Resolved, That the Committee on Revision of the U. S. Pharmacopœia should consist solely of acknowledged experts—one or more of whom shall be a practical manufacturing chemist, and one or more a druggist familiar with the drug markets of the world—who will agree to devote a sufficient portion of their time to the prompt and satisfactory performance of their duties, and that members of this committee receive adequate compensation for services they render.

Resolved, That public notice of all proposals for changes and tests be given in the pharmaceutical press before adoption.

Resolved, That standards of chemicals while excluding or reducing to a minimum impurities considered harmful, shall permit a small given percentage of a harmless constituent where its elimination would add unduly to the cost.

Resolved, That standards for drugs of vegetable origin be based only on fair average qualities and formulas for preparations be adjusted to same.

Resolved, That the legal character of the U. S. Pharmacopœia demands most careful scrutiny of the language used in describing both standards and tests.

Resolved, That the members of the Association who may be appointed delegates to the Pharmacopœial Convention form themselves into a committee which shall present the views of this Association to that body and pledge the members of the Association

to the hearty support of all measures taken to secure, in the ninth revision of the U. S. Pharmacopœia, a more perfect and reliable standard of excellence than has been hitherto obtainable.

President Carter:—Gentlemen, you have heard the report of the Board of Control on the Report of the Special Committee on Standards and Tests. What action will you take in connection with the report?

Mr. Plaut:—I do not know whether this matter was discussed and explained at the time the report was offered. Did Mr. Main at that time make any explanation?

Thos. F. Main, New York:—In relation to the first recommendation, there is one portion of it, particularly that part which refers to the recommendation that there should be on that committee a chemist familiar with the manufacture of medicinal chemicals, and a druggist familiar with the world's drug market, and this body has put itself on record before as being in favor of such men being on the final committee. I think that the resolution is self-evident and does not require explanation.

Perhaps some members of the Association, however, may not be familiar with the composition of the Committee on the Revision of the Pharmacopœia. The convention which is to meet next May, if it follows past precedents, will then elect a committee of twenty-five to revise the U. S. Pharmacopœia. Heretofore, as was explained in the report written by our committee, the great majority of these gentlemen have served mainly without pay, that is, they have received a small honorarium or compensation which in some cases amounted to $25 a year, or $250 for the ten years. You can readily understand that most of these men being professors in college, etc., were naturally unable to give very much of their time to the work they had to do, and the last revision of the Pharmacopœia, I think, occupied five years. Some of the men elected to that important committee were men elected out of consideration for themselves, and it was supposed to be an honor to serve on that committee—it is an honor undoubtedly—but I understand quite a number of the men on the committee did very little work, and the work was done by a few.

We believe, therefore, that our recommendation that the men on the committee in the future shall consist of acknowledged experts who will agree to devote sufficient of their time to the prompt and

satisfactory performance of their duties, and that they should receive adequate compensation, is timely, and one which this body should convey to the Pharmacopœia Convention when it meets.

Mr. Plaut:—I think we all understand it much more clearly now, and my remarks were meant to call out just such an explanation.

In regard to the section requiring notice of all proposals for changes and tests to be given in the pharmaceutical press before adoption I do not know just how that will work out, and I would like to hear from Mr. Main on that point.

Mr. Main:—I think that has been proposed before. I talked with one of the members of the last Committee on Revision, and he said that he and his associates had so much difficulty in getting responses from the men on the commission of twenty-five that he considered it would be impracticable to get the consensus of opinion of the entire trade, as it were, but I believe, and the members of my committee believe, that it would be far better for the Committee on Revision to have comments on the proposed changes of standards and tests sent in before the adoption of a new clause rather than afterward. It would not be necessary for them to answer all of these comments, but you can see the advantage to the trade at large.

We will assume that the committee has under consideration the revising of a certain standard. If a notice was sent to the pharmaceutical press that it was proposed to change a certain standard, naturally every one of you gentlemen interested would look into the proposition, and if you saw any objection to the change you would hasten to send your objection to the committee, which would be fully considered by the committee before that change was made, and therefore it appears to us that the widest publicity should be given in the future to all proposed changes in the standards or tests in the Pharmacopœia, so that when the new Pharmacopœia is promulgated it shall be practically a perfect work, and I believe a more perfect work can be secured if publicity is given in advance to all proposed changes.

(*To be Continued*).

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EDITORIAL.

By this time you all undoubtedly have heard or read of the resignation of our honored instructor and professor, Dr. Charles F. Chandler.

Words adequately expressing our love for our professor and the good work he has done for all fail us at the time, and we have decided to devote the entire March issue to a special CHANDLER number. We hope to present something that will be worth keeping as a Chandler Souvenir.

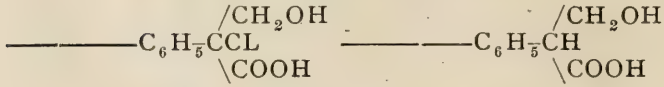
While we have at the present writing considerable data pertaining to the life and works of Dr. Chandler, at the same time to make the Chandler issue as complete as possible we would like to have any one possessing data relative to Dr. Chandler to send same at once to the Editor, so that it may be incorporated in that issue.

THE CHEMISTRY OF THE SOLANACEOUS ALKALOIDS*

By Curt P. Wimmer, A. M., Phar. D.

(*Continued from January Issue.*)

Reduction by Zn and Na (OH).

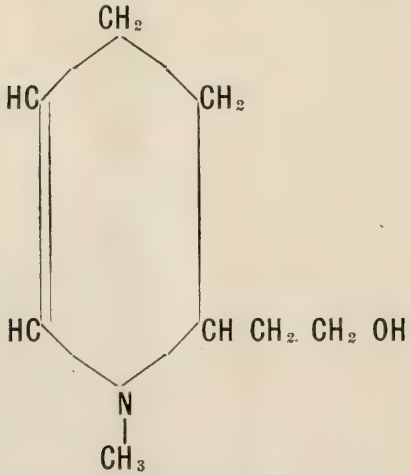


Chlor-phenyl hydracrylic Acid. Tropic Acid.

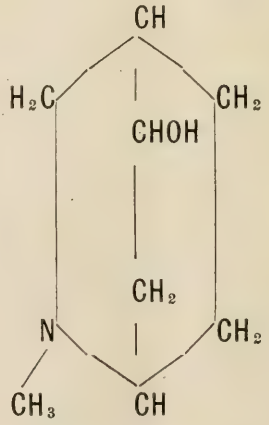
The opically inactive variety of acid is obtained. By means of the quinine salt, the two active modifications can be separated. The dextro rotary acid melts at 127–128°C. the laevo rotary at 123°C.

TROPIN, $C_8H_{15}NO$.

After many years of research work by such well known men as Mehrling and Ladenburg, two totally different formulae for Tropic were offered by them,



Ladenburg's Formula.



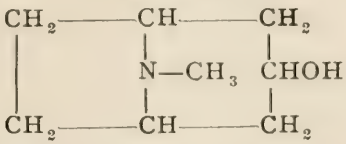
Mehrling's Formula.

Willstätter, one of the brightest and most successful of the present day organic chemists, next took up the researches of Tropin and proved quickly that neither of the two older formula was correct. His investigations solved the problem completely. He showed, that Tropin can be, by a series of reactions, changed into normal pimelinic acid. Consequently, Tropin must contain an unbranched 7 carbon

*Read in Organic Chemical Conference, Columbia University.

chain, in other words, it contains a suberane nucleus. Willstätter advanced the following formula,

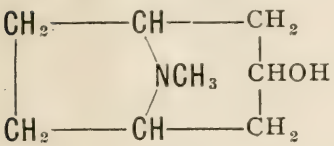
TROPIN.



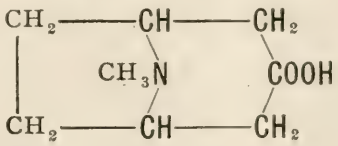
This formula shows that Tropin if a derivative of

1) Pyrrolidine,
2) Piperidine,
3) Suberane.

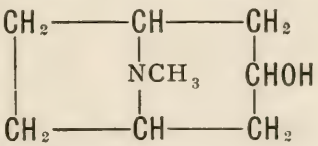
1) Pyrrolidine nucleus.



2) Piperidine nucleus.

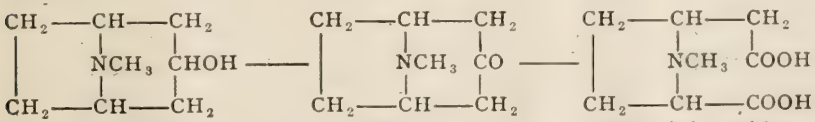


3) Suberane (Cycloheptane) nucleus.

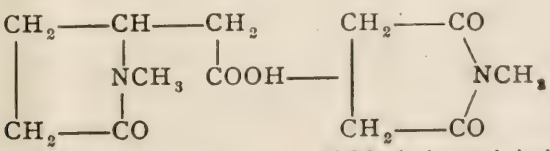


a) Proof of presence of the Pyrrolidin nucleus.

Willstätter obtained, by oxidation with strong Chromic acid mixture, N Methyl succinimid, according to the following formulae.

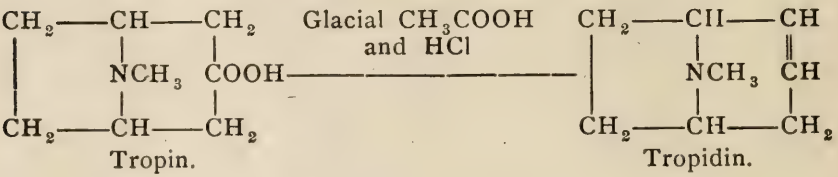


Tropin. Tropinon. Tropinic acid.

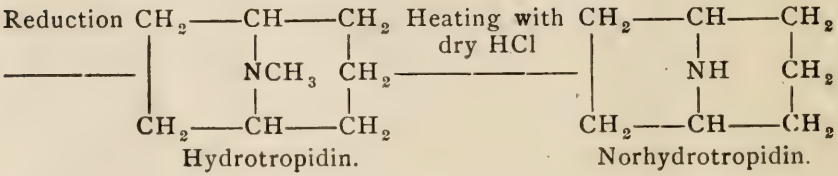


Ecgonic acid. N Methyl succinimid.

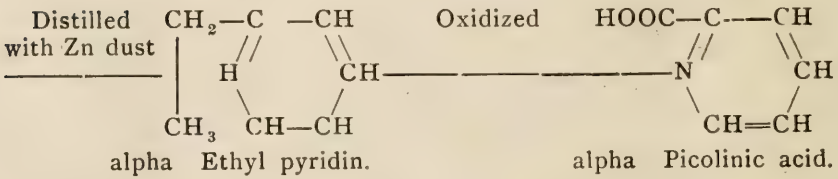
b) Proof of the presence of the Piperidin ring is given by the change of tropin into picolinic acid. This is accomplished as follows:



Tropin. Tropidin.

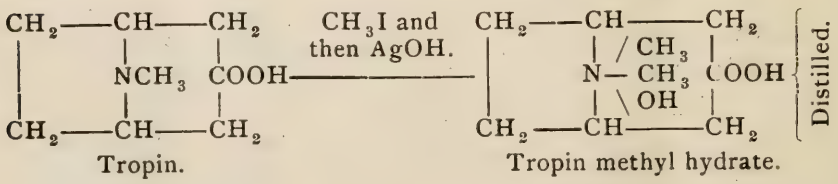


Hydrotropidin. Norhydrotropidin.

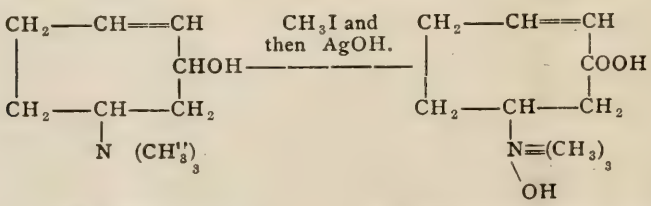


alpha Ethyl pyridin. alpha Picolinic acid.

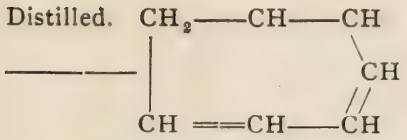
c) Presence of the Cycloheptane or Suberane ring may be shown by exhaustive methylation when Cycloheptatrien is obtained.



Tropin. Tropin methyl hydrate.



alpha Methyl tropin. N Methyl tropin Methyl hydrate.



Tropilidin (Cycloheptatrien).

Tropin occurs in colorless plates, it melts at 63°C., is optically inactive, is easily soluble in water and alcohol.

(*To be Continued*).

ALUMNI BALL.

The Fifteenth Annual Ball of the Alumni Association was held at the Harlem Casino on Thursday, January 13th, 1910. It was a complete social and financial success. The hall was beautifully decorated, the Kappa Psi and Phi Delta Chi boxes presented especially splendid pictures with their flags, colors and electric lights.

The grand march started promptly at 10 o'clock, led by Mr. Ewen McIntyre, the chairman, and Mr. Ebbitt, the vice-chairman. About 100 couples followed, directed by Mr. Edward Pfaff, who was a very efficient floor manager.

Dancing continued until about 4 A. M., and when the music sounded "Home, Sweet Home," there were many who expressed regrets.

Hearty congratulations to the chairman, Mr. McIntyre. Expressions of thanks are due to the wholesalers for their generous financial support.

CLASS NOTES.

A. Lopez, class '08, is the proprietor of the American Pharmacy at Empire, Canal Zone, Panama, and would be glad to hear from the boys and girls of his class. He is far away from 68th Street, New York, like a good many of the other graduates, all of whom we would be pleased to hear from.

The annual ball of the Kappa Psi fraternity at Tuxedo Hall on Jan. 28th, 1910, was well attended and was a decided success.

The Phi Chi Grand Council will meet in New York this year. A banquet and dance will be held in honor of the representatives while here.

Question in quiz: What is the active constituent of Citrine Ointment? Answer given: Citric Acid.

Many of the seniors attended a smoker at Ebling's Casino, Jan. 28th. This was given by the National Pharmaceutical Society.

When Labarraque's Solution is added to Potassium Iodide, the alkaloids of the former are precipitated. This is a Senior University Gem.

Jolly Sammy Landau of the Class of 1905, who is spending his spare time at Taub's Drug Store, 175 Park Row, claims that Park Row air is making him fat. He jigs all day in order to reduce his weight.

Meyer J. Samuelson, '05, can be found at any time at 1417 Prospect Avenue, Bronx, N. Y. He would be especially delighted to have the girls call on him. (He always did like the Co-Eds.)

Walter H. Dippel, '07, is located in business at Clinton, Oklahoma. Like many others, he desires to know how much he owes for subscription to the Alumni Journal. Nothing, Walter. The Journal is sent to all members of the Alumni Association gratis.

ALUMNI PIN.

Only graduates are permitted to purchase and entitled to wear this pin. It is distinct and different from a class pin, which can be worn by any member of a class. The pin is made of solid gold with blue enamel. Its style is shown on cover. Your name, year of graduation and the pin number will appear upon the reverse side. The cost is $6 if delivered, or $6.15 if sent by registered mail. Pins may be obtained upon application to Dr. George C. Diekman, 115 West Sixty-eighth street, New York City.

All babies are so smart it's a mystery where so many brains go before they grow up.

If a man has a good reputation people want to have a constant cat and dog fight about it.

The time we can have faith in disagreeable treatment is when we are dosing somebody else with it.

A comfortable thing about your children is when they are so naturally impish it's of no use to try to pretend how good they are.

SCHEELE, THE CHEMIST.

By Victor Robinson.

It is not merely as an investigator and discoverer, but as a high-principled and unassuming man, that Scheele merits our warmest admiration. His aim and object was the discovery of the truth. The letters of the man reveal to us in the most pleasant way his high scientific ideal, his genuinely philosophic temper, and his simple mode of thought. "It is the truth alone that we desire to know, and what joy there is in discovering it!" With these words he himself characterizes his own efforts.

Ernst von Meyer, Ph.D.

We may regard Scheele not only as having given the first indication of the rich harvest to be reaped by the investigation of the compounds of organic chemistry, but as having been the first to discover and make use of characteristic reactions by which closely allied substances can be detected and separated, so that he must be considered one of the chief founders of analytical chemistry.

Sir H. E. Roscoe, F. R. S.

What a strange creature Poetry chose for her prophet—a blind man who begged his bread through seven towns.

But was not Philosophy's founder similarly bad—a bow-legged, bald-headed fellow, with goggle eyes and a sunken nose, who displeased the authorities and drained a cup of hemlock?

And I fear me that Science has been equally amiss, for the father of Pharmaceutics was a poor invalid, who passed his days in debt, and died young—dreaming of test-tubes.

Yet jibe not at these men. The centuries uncover to them. Ride on your mightiest locomotive, sail away on your speediest air-ship, thou proud mortal of modern days; visit the wealthiest nations, look upon the most majestic of empires, and remember that when their boasting is done and their glory fades, many a precious shelf will still be the pedestal of volumes relating the "Life and Work" of the undying masters.

Where are the towns that refused food and welcome to the inspired singer? They are blotted from the map, and if they still linger in the memory, it is only because their unworthy streets were once trod by the feet of the poet.

Does the court-house in which it was decided that the philosopher must quench his immortal thirst with hemlock, still dare to stand?

No, but the bust of the intellectual martyr adorns the niches of a thousand museums.

And that little drug store out in Sweden that couldn't pay its expenses has taken off its sign, but the experiments which the chemist performed in that obscure village will never be removed from the sanctuary of science.

Places are swallowed up, cities disappear, nations decay and kingdoms perish, but an unusual man marches through the aisles of the ages, never to be lost.

Amoebae may be identical, but the minds of men differ; Keats had the poetic instinct, and Scheele the scientific spirit.

Keats was apprenticed to an apothecary, but he cared more for poems than pills, and sometimes when he mixed an ointment there came to him a sunbeam with fairies floating in the ray. He was a child of Apollo, not Aesculapius, and the lustrous parent claimed his favorite son. The pestle was not the fingers that held poesy's pen, and he exchanged the gallipots of the counter for the galaxy of the heavens, and instead of the dried remains of collected beetles, he searched for the irridescent butterflies that shake their damask wings among the morning glories.

Scheele was sent to a school of languages, but he was more interested in acids than ablatives, and the miracles that take place in a test-tube had for him an awful fascination. And soon in Bauch's drug store was a new clerk, aged fourteen. Little Karl Scheele had begun to rinse botles, and to wipe the dust from the jars that were seldom used. He removed all dirt from the stem of the funnels, and when he cleaned the metal mortars their polished surfaces reflected back his earnest features. And he told his brothers and sisters all about it, for his parents had ten children besides himself, but what their names were I really do not know.

Scheele's original work was done mainly at night. It was then he saw what was never seen before. When the moon glorified the firmament, and a thousand starry orbs looked out, strange power came to him, and he planted his foot on untrodden ground. In his skillful hands the crucible became a sesame that unlocked the door of nature. His spatula was a magic wand that brought forth unknown things. He filled his capsules with the powders of research. His tongs pulled hot coals of fact from the boiling caldron of knowledge. With the bellows of reason he fanned the fires of truth. When his

condenser was heated with experiment, it was discoveries that distilled over. Hark, how the midnight was startled by the bubbling of Scheele's alembic!

There came a time when physics no longer ministered to the ailing body of the apothecary of Koping. Purges were tried but without avail, balsams and liniments helped not, and he went to the land where all good druggists go, and bad ones, too. Yes, he died, leaving a drug store and a widow, and Scheele wanted both of them. He bought the former and hoped to acquire the latter when circumstances permitted. (To-day his statue stands at Stockholm, but in those days he couldn't pay his bills.) Business was bad, and it was only several years later that they married. And such a marriage—with Death for the priest!

Science seemed jealous that this man should take another mistress, and two days later he died. He had no children, so all chemists could call him father. Perhaps it is better so. Like so many other great men, he might have become the sire of pigmies. Intellectual giant that he was, from his loins might have sprung a race of dwarfs. Aurelius was noble, his son was a monster; Cromwell was mighty, his child was a weakling; Goethe was everything, his offspring was nothing. Heredity is a humbug—often.

Scheele's fate might have been similarly sad. Yet in another respect, such a man cannot be called childless. He was wedded to science, and she is ever fertile. Let her lover only be in earnest, and she is no barren spouse. Come, I will show you his children, a far-famed progeny—Berzelius, Chevreul, Liebig, Bunsen, Thenard, Kelvin, Ramsay, Kopp, Becquerel, Curie, Marie Slodowska, Baeyer, Squibb and Charles Rice.

* * * * * *

In estimating Scheele's work we must bear in mind that in his day chemistry had just thrown off the fantastic garb of the alchemists, and was hardly accustomed to the scientific clothes which it had so lately donned.

It is true that among his contemporaries were great-brained workers like Black, Bergmann, Cavendish, Priestley, Rutherford and Lavoisier; that "the subtill science of holy alkimy" was dead among enlightened men; that the Universal Solvent was forgotten, and the Philosopher's Stone unsought for; that he was never asked to compound the following prescription: "Calcine vitriol until it becomes

yellow, add mistle-toe, hearts of peonies, elk's hoofs, and the pulverized skull of a malefactor; distill all these dry, rectify the distillate over castoreum and elephant's lice, then mix with salt of peony, spirit of wine, liquors of pearls and corals, oil of aniseed and oil of amber, and digest on a water-bath one month."

Still at this time Chemistry stood only on Mount Abarim and gazed at the Promised Land which it was not to enter until the ensuing century.

To-day we know about eighty elements; he knew about fifteen.

In Scheele's day fire was procured by means of flint and steel with tinder-boxes and sulphur-tipped splints of wood. It was forty years after his death before the first friction matches were invented by the English druggist, John Walker, of Stockton-on-Tees.

Only after his body had turned to dust, was gas used for lighting, was the hydraulic press patented, was the Voltaic pile made, was electro-magnetism discovered, was the limelight of Drummond invented, and the Daguerreotype process introduced.

Scheele died in 1786, and it was not till the beginning of the nineteenth century that Dalton announced his atomic theory and formulated the Law of Definite Proportions which became the immediate cause of innumerable discoveries. Mendeleyeff's important system in which it is shown that the properties of the elements are periodic functions of their atomic weights, came much later still.

In 1805, Sertürner discovered the basic constituents of opium, and thus paved the way for the alkaloids, but Scheele never heard of morphine, strychnine or quinine.

By means of the galvanic battery Humphrey Davy did wondrous things—he discovered element after element, he decomposed water into hydrogen and oxygen, he separated salts into acid and base, he resolved acids into their electro-positive and electro-negative constituents, he simplified bases into the metal and oxygen,—but there was no voltaic chemistry while Scheele lived.

Michael Faraday began systematic work in the liquefaction of gases and liquefied chlorine, hydrogen sulphide, cyanogen, ammonia and sulphurous acid. On December 24, 1877, at a meeting of the French Academy a paper by Cailletet was read containing these welcome words: "I have just this day liquefied oxygen and carbon monoxide." There was another paper by Pictet announcing: "To-day I liquefied oxygen at a pressure of 320 atmospheres and a tem-

perature of—140°C, obtained by means of liquid sulphurous and carbonic acid." The patient Dewar succeeded in securing obstinate hydrogen not only in a liquid but even in a solid state. Mighty deeds; Scheele's heart would have leaped at them, but he never knew.

Nor did he ever know that urea, an organic body, could be produced artificially in a laboratory.

Scheele had not the hundredth part of the delicate and intricate instruments with which the chemist of to-day is supplied. His apparatus was of the crudest sort, and much of it he was compelled to manufacture himself. He never saw a polariscope, or a balance which weighed a pencil-mark. Had he seen a laboratory like Sir William Ramsay's, his actions would have resembled those of his great countryman, Linnaeus the Botanist, when he first spied an English wild-flower,—the earth would have felt his knees.

When we remember these hardships and at the same time recall the immense amount of valuable work he accomplished, we realize what manner of man was Scheele. The pioneer who blazes the trail in an unknown forest, surely deserves as much credit as he who comes leisurely after and helps to widen the already-made path. If the second is the more cultured of the two, he is the less original.

Because of Scheele's devotion to it, mention must here be made of one of the most interesting hypotheses that ever entered into the history of chemistry—the Phlogistic theory. This doctrine which was introduced by Johann Joachin Becher (1635-1682), and championed by George Ernst Stahl (1660-1743) had special reference to the alterability of substances by fire. Its essential feature consisted in assuming that all matter which could burn was a compound, containing at least two constituents. On combustion, one of these remained behind and one escaped. The element which remained was named calyx, the principle which disappeared was called phlogiston. It corresponded somewhat to the "celestial heat" of earlier chemists. Since this Phlogiston existed in all combustible substances and always vanished on heating, it was believed that every time a substance was burned it grew lighter.

In due time it began to be pointed out that some substances when heated, instead of becoming lighter, become heavier, and that often the products of combustion weigh more than the substance burned. It was shown that when zinc is burned, it changes into a white powder which is heavier than the original metal.

Lavoisier knew that when phosphorus burns, the acid body formed by the combustion weighs more than the phosphorus did. But it takes a long time for a naked fact to destroy a theory intrenched in argument, and defended by dialectics. Yet already the casket of Phlogiston was being prepared, and Lavoisier was the immortal undertaker.

Oxygen was discovered by Priestley and Scheele, nitrogen was found by Rutherford, the air was analyzed by Cavendish, and a great light illumined the mind of the French chemist, and the death-knell of the doctrine of Becher and Stahl was rung. Hitherto, combustion was thought to be due to a chemical decomposition in which Phlogiston escapes, but Lavoisier now accounted for the phenomenon of combustion by chemical combination, oxygen or another element being taken up.

The lid was ready to be nailed to the coffin. And the talented wife of Antoine Laurent Lavoisier,—Liebig has told us so,—robed as a priestess committed to the flames on an altar, while a solemn requiem was chanted, the phlogistic system of chemistry.

(*To be Continued*).

REPORT OF BOARD OF CONTROL ON STANDARDS AND TESTS.

(*Continued from Dec. 1909*).

Mr. Plaut:—In reference to the third resolution, "That standards of chemicals, while excluding or reducing to a minimum impurities considered harmful, shall permit a small given percentage of a harmless constituent, where its elimination would add unduly to the cost," it gives me pleasure to state that we will have the influence of Dr. Wiley, an influential factor in Washington in matters of that sort. That is the principle enunciated by the Geneva Congress, to which Dr. Wiley was a delegate, and he supports it and it will receive the support of Prof. Baskerville, chairman of the Committeee on Tests of the American Chemical Society, and it will certainly serve to make unconscious infractions of the Food and Drugs Act very difficult hereafter. I feel that this is a very important matter. We do not judge by analytical laboratory standards, but by the standards of the requirements of the users of these chemicals.

Thomas F. Main:—Concerning the fourth resolution which reads:—"That standards for drugs of vegetable origin be based only on fair average qualities and formulas for preparations be adjusted to same," I wish to say that the tendency in the last revision of the Pharmacopœia was to make the standard for the drugs as high as possible. Many of the gentlemen who served on the Committee of Revision, were professors in colleges of pharmacy. Colleges of pharmacy, of course, draw their samples from the wholesale drug trade, and it is a natural thing for one of you gentlemen, upon receiving an order for ten pounds of belladonna leaves for samples for the college of pharmacy in your district, to give orders to have your stock man send leaves of the very best selection to serve as specimens for the students. The result is that these samples, in a good many cases, assay a good deal better than the average run would do, and, as was pointed out in the full report of our committee, the crops of drugs are mostly wild—very few cultivated—and we know how widely the cereals, for instance, differ in value from year to year, and wild crops differ still more, and in the opinion of your committee it is much better to take a fair average standard for these vegetable drugs, and if it was considered necessary the quantity of those used in any given formula could be increased, and we could more readily come up to the requirements of the Pharmacopœia in that way than by adopting an apparently impossible standard for the crude drug.

Mr. Plaut:—I move the adoption of the report of the Board of Control as presented. (Motion seconded and carried.)

President Carter:—Would it not be well to have a special committee appointed to present our credentials and these resolutions to the Pharmacopœia convention?

Mr. Main:—We, as an association, not being incorporated, are not entitled to representation in the Pharmacopœia convention. A number of our members have been elected delegates from the State Pharmaceutical societies, or the colleges of pharmacy, and they can better present the views of this Association to that body than if we voluntarily attempt to send a committee to appear before them. These gentlemen have the right to the floor and as members of our organization they can present our views better than if we appoint a special committee to do any such thing.

CHANDLER SOUVENIR

VOL. XVII. MARCH, 1910. No. 3.

THE Alumni Journal

Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eightieth Annual Course of Instruction of this College began on the 27th day of September, 1909.

Two undergraduate and two graduate programs of study are offered.

The College Course of two years, open to those possessing 15 Regents' counts (one year of high school) leads to the degree of Graduate in Pharmacy, conferred by the College.

The University Course of two years, open to those possessing 60 Regents' counts (graduate from high school) leads to the degree of Pharmaceutical Chemist, conferred by the University.

The Food and Drug Course of one year, designed to prepare for food and drug inspectorship, is open to anyone capable of performing the work. It requires a good knowledge of analytical chemistry and vegetable histology, laboratory as well as theoretical. Those requiring special training may attend our Summer Preparatory Course. Great improvements have been made in our Food and Drug Course for 1910.

Our Graduate Course, of one year, open to our Pharmaceutical Chemists or other graduates of equal rank, leads to the degree of Doctor of Pharmacy, conferred by the University. Our certificate for an additional optional year is recognized by the federal food and drug authorities as the equivalent of the B. S. degree.

For information, address,

THOS. F. MAIN, Secretary,
115-119 West 68th St., New York City.

TESTIMONIAL DINNER

TENDERED TO

Prof. Charles F. Chandler

BY THE

OFFICERS, TRUSTEES,

FACULTY AND MEMBERS,

AND THE ALUMNI OF THE

College of Pharmacy of the City of New York

AT THE

Hotel Astor

March 28

1910

SOUVENIR NUMBER OF ALUMNI JOURNAL

R. A. WEED, N.Y. INVT. ET SCULP.

PROFESSOR CHARLES FREDERICK CHANDLER.

A Sketch of His Life and of His Services to the College of Pharmacy of the City of New York.

The many thousand graduates of the College of Pharmacy of the City of New York, and of the various schools connected with Columbia University, as well as the undergraduates and the members of the faculty associated with him, will learn with regret that after the present academic year Professor Charles F. Chandler will no longer lecture in any of these schools.

After a long, useful and honorable career Professor Chandler has decided to resign from all activity connected with the different institutions with which he has been associated so many years and his resignation, which is to take effect June 30, 1910, has been reluctantly accepted by the trustees both of Columbia University and of the College of Pharmacy of the City of New York, relieving him of active teaching duties at the close of the college year.

Professor Chandler's career as a teacher began at Union College, Schenectady, in January, 1857, and has continued without interruption down to the close of the current collegiate year when he will lay down his burdens as a teacher. His services have not been confined to teaching or to the administrative work incident to his position as dean of the School of Mines and head of the Department of Chemistry of Columbia University, of the College of Physicians and Surgeons and the College of Pharmacy. His activities have embraced almost the entire range of interests touched in any way by chemistry, one of his most imporant services to the community having been rendered as president of the Health Department of the City of New York for the eleven years between 1873 and 1884. It is to his expert knowledge of sanitary science and his remarkable administrative capacity that we are largely indebted for the present organization and methods of the Health Department of the City of New York.

As an investigator he has made numerous and valuable contributions both to industrial and sanitary chemistry, and to his work in the establishment and publication of **The American Chemist**, in conjunction with his brother, Professor William E. Chandler of Lehigh University, was largely due to the formation of the

American Chemical Society, which in fact, grew out of the publication in that journal of the proceedings which took place at the celebration of the centennial anniversary of the discovery of oxygen at the grave of Priestly in 1874, a celebration which was presided over by Professor Chandler.

Every student who ever sat under Professor Chandler will recall with pleasure the attractive and delightful manner in which he

Dr. Chandler in 1866, when he accepted the chair of Chemistry at the New York College of Pharmacy.

presented his subjects and the interesting incidents which he used to illustrate the different points which he desired to emphasize. He had an inexhaustible store of anecdotes concerning popular chemists, inventors and discoverers and no student ever grew sleepy during his lectures. He never failed to arouse a desire on the part of his hearers for more knowledge on that limitless topic,

organic chemistry, and the result was that his lecture room was always filled, that the students waited with impatience for his appearance, greeted his coming with applause, and noted his departure with regret.

Professor Chandler was born in Lancaster, Mass., on December 6th, 1836, at the residence of his grandfather, Nathaniel Chandler. On his father's side he was descended from William Chandler, who came to America from England in 1637 and located at Roxbury, Mass. While yet a youngster, Professor Chandler attended lectures on scientific subjects. He entered the Lawrence Scientific School of Harvard University in 1853. While a student at Harvard he received instruction from Professors Agassiz and Hosford. Later he went to Germany and studied under Professors Wöhler, a pupil of Berzelius, and Weber at Göttingen University. Later on he went to Berlin where he took a course in the University, acting as private assistant to Professor Heinrich Rose, while studying mineralogy with Professor Gustav Rose, physics under Professor Dove, and applied chemistry under Professor Magnus.

In 1856 he received the degree of Ph. D., from the University of Göttingen for his researches in mineral chemistry.

He returned to the United States in 1856 and received an offer from Professor Joy, who was then at Union College, to become his private assistant. This offer he accepted, assuming his duties early in January, 1857, when just twenty years of age. In April of that year Professor Joy resigned his professorship to take the Chair of Chemistry at Columbia. President Eliphalet Nott of Union College immediately invited young Chandler to assume the duties of the professorship—which he did so successfully that he was soon appointed Adjunct and then full Professor of Chemistry. Here he successfully delivered courses of lectures on chemistry, inorganic and organic, crystallography, blowpipe analysis, descriptive mineralogy, agricultural chemistry and geology.

In the fall of 1864 at the urgent request of Professors Egleston and Joy, he became the head of the department of chemistry in the new School of Mines of Columbia College. He delivered lectures on qualitative analysis, stoichiometry, quantitative analysis, applied chemistry and geology, without any recompense for his services except such fees as might be received from pupils. He received the title of Professor of Analytical and Applied Chemistry and was made Dean of the Faculty. When the School of Mines was reorganized he received the chair of general chemistry. In 1872 he became adjunct professor of chemistry and medical jurisprudence in the College of Physicians

and Surgeons being made full professor four years later, which professorship he held nearly twenty-five years, lecturing on physics and chemistry for four afternoons each week.

In 1866 Professor Peter Wendover Bedford requested Professor Chandler to aid in the development of the College of Pharmacy of the City of New York, which then occupied a single room in the old building of the University of the State of New York on Washington Square East. The institution was then in a very modest stage of development and had only about thirty students. Professor Chandler accepted the invitation, lecturing three evenings each week during the winter, receiving no salary at first. In fact, he even

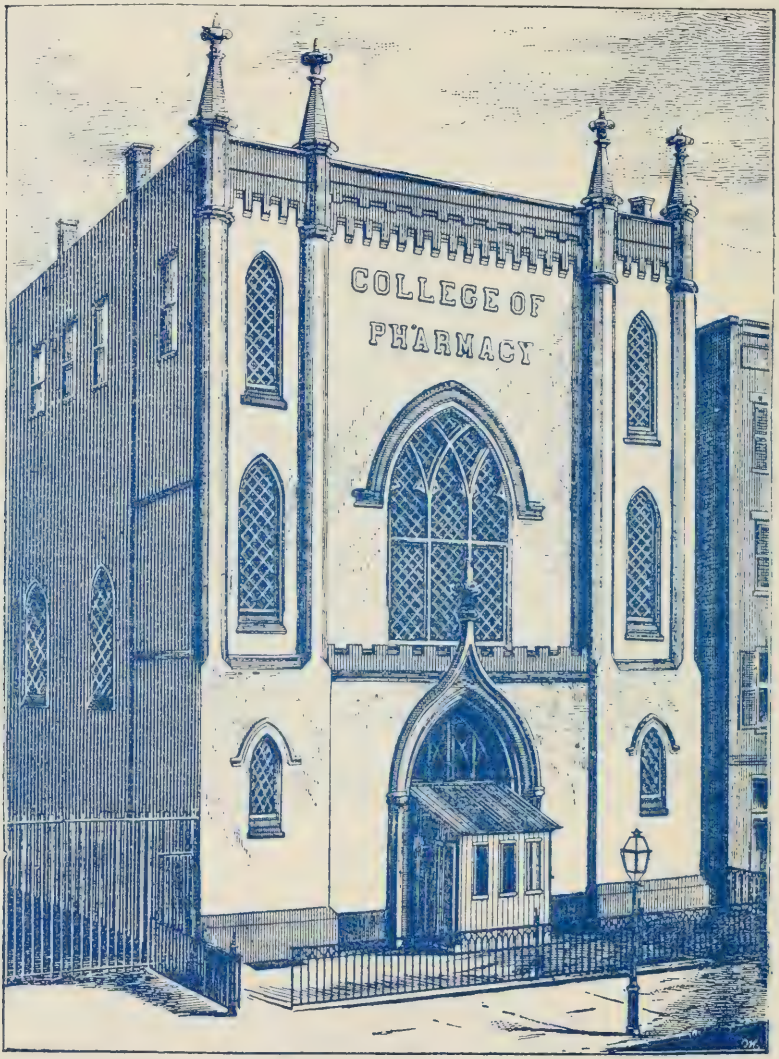
University of the City of New York, Washington Square.- In 1866 the College of Pharmacy occupied the room in the second story the windows of which are marked with crosses.

furnished the apparatus and the material needed to illustrate his lectures.

The College of Pharmacy of the City of New York had been formally organized as the College of Pharmacy of the City and County of New York at a meeting of prominent pharmacists and wholesale druggists held on March 18, 1829, the constitution having been signed by seventy-two pharmacists. The first officers elected were: President, John D. Keese; vice-presidents, Henry H. Schieffelin, John L. Embree, and Waldron P. Post; treasurer, Theodore Keese; secretary, Oliver Hull, and trustees, H. T. Kiersted, Con-

stantine Adamson, Paul H. Lalonette, Patrick Dickie, James H. Hart, James C. Haviland and Lindley Murray.

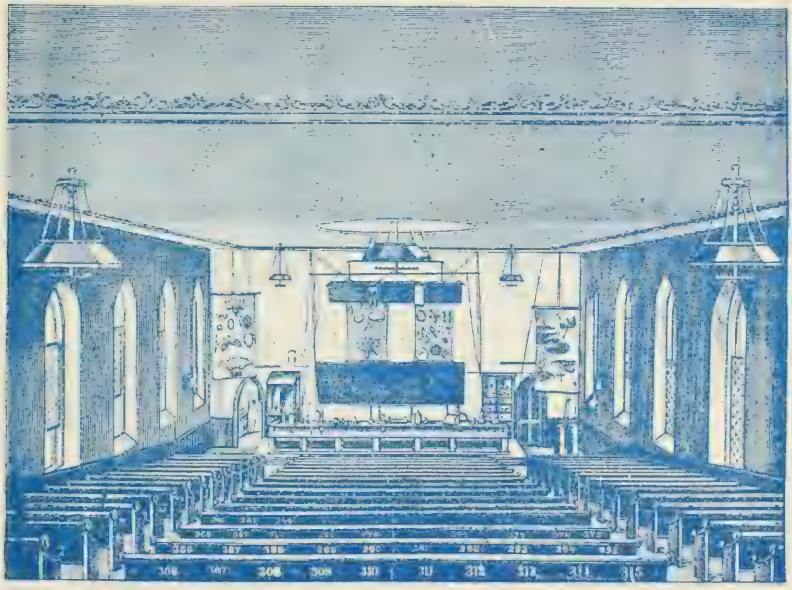
It was not until April 25, 1831, that a charter was secured when the name of the institution was changed to "The College of Pharmacy of the City of New York," the purposes of the institution as de-



The Twenty-third street building of the College of Pharmacy. Occupied from 1878 to 1893.

fined by the charter being, the "Cultivating, improving and making known a knowledge of pharmacy, its collateral branches of science, and the best mode of preparing medicines and their compounds,

and of giving instruction in the same by public lectures." The college was authorized to hold real and personal property to the value of $200. This charter was amended in 1839, a renewal granted in 1856 and this amended in 1871 and in 1884 so as to permit the institution to hold property to the value of $300,000. In 1832 the college began an agitation for the enactment of a pharmacy law for the city which was passed in 1839. In 1833 the pharmacopoeia published at Philadelphia was adopted. In 1877 a standard series of weights and measures was adopted which was approved by the New York County Medical Association two years later. In 1878 the college secured the exemption of pharmacists from jury duty. In 1846 Mr. Ewen McIntyre, then an apprentice



Lecture hall in the Twenty-third street building.

to Mr. George Coggeshall, called attention to the adulteration of the drugs and chemicals on the market, and in consequence of the agitation which followed the College proposed the enactment of a law preventing the importation of adulterated or sophisticated drugs. This law was passed by Congress along the lines suggested and the agitation in connection with this law led to a call for a meeting which was held in New York in 1851 out of which grew the American Pharmaceutical Association.

In all the affairs of the college Professor Chandler has taken an active, an influential and a helpful part, ever since he became a member of the faculty, and much of the success of

the institution has undoubtedly been due to the valuable support which his connection with the institution gave to it, aside from the benefit derived directly from his efforts.

The College finally having outgrown the accommodations provided by the University Building, the old Morton Memorial Church at 209 and 211 East Twenty-third Street was purchased in 1878 and its interior remodeled to suit the purposes of the College.

In these more commodious quarters the institution grew rapidly and in 1892 the plot was purchased at 115 to 119 West Sixty-eighth Street and the modern fire-proof building erected which now stands a monument to the untiring efforts of Professor Chandler and his associates in the building up of the institution.

The growth of the institution is clearly shown in the following tabular statement of the number of graduates:

NUMBER OF GRADUATES IN PHARMACY EACH YEAR FROM 1831 TO 1909:

1831.... 3	1846.... 2	1861.... 9	1877.... 55	1892....103
1832.... 4	1847.... 5	1862.... 4	1878.... 49	1893....112
1833.... 1	1848.... 1	1863.... 7	1879.... 65	1894....128
1834.... 2	1849.... 1	1864.... 2	1880.... 44	1895....105
1835.... 3	1850.... 0	1865.... 7	1881.... 65	1896....134
1836.... 7	1851.... 3	1866.... 5	1882.... 83	1897....127
1837.... 8	1852.... 1	1867.... 8	1883.... 60	1898....148
1838.... 3	1853.... 1	1868.... 7	1884.... 71	1899....109
1839.... 3	1854.... 4	1869.... 4	1885.... 73	1900.... 97
1840.... 1	1855.... 2	1870.... 11	1886.... 84	1901....125
1841.... 4	1856.... 3	1871.... 11	1887.... 81	1902....119
1842.... 3	1857.... 0	1872.... 9	1888.... 87	1903.... 94
1843.... 0	1858.... 2	1873.... 33	1889....106	1904.... 88
1844.... 4	1859.... 2	1874.... 35	1890.... 91	1905....110
1845.... 3	1860.... 5	1875.... 37	1891....119	1906....173
		1876.... 39		1907.... 81
				1908.... 75
				1909.... 81
				Total—3,431

NUMBER OF POSTGRADUATES RECEIVING THE DEGREE OF DOCTOR OF PHARMACY FROM 1896 TO 1906:

1896..... 7	1899..... 7	1902..... 15	1905..... 15
1897..... 6	1900..... 8	1903..... 7	1906..... 15
			1908..... 3
			1909..... 5
			Total—152

NUMBER OF GRADUATES RECEIVING THE DEGREE OF PHARMACEUTICAL CHEMIST:

1905..... 3	1906..... 10	1907..... 8
1908..... 21	1909..... 7	Total..... 49

NUMBER OF STUDENTS WHO ATTENDED THE FOOD AND DRUG COURSE:

1908..... 17	1909..... 9	Total..... 26

The pharmaceutical chemists are included in the list of graduates in pharmacy, as both degrees were awarded to the former candidates in one year. In 1907 the College had two Doctor of Pharmacy courses—one a College and the other a University course—and after 1907, only one—the University course. The Food and Drug Course began in 1908.

In 1905 Columbia University recognizing the valuable work being done by the College of Pharmacy of the City of New York in-

Dr. Chandler in 1903.

vited the College to become affiliated with the University. The offer was accepted and the College is now a part of one of the foremost universities of the world. In this affiliation Professor Chandler played a most important part.

The College has always been self supporting and its continued existence has only been made possible by the self-sacrificing labors of such men as Professor Chandler, who gave his services to the

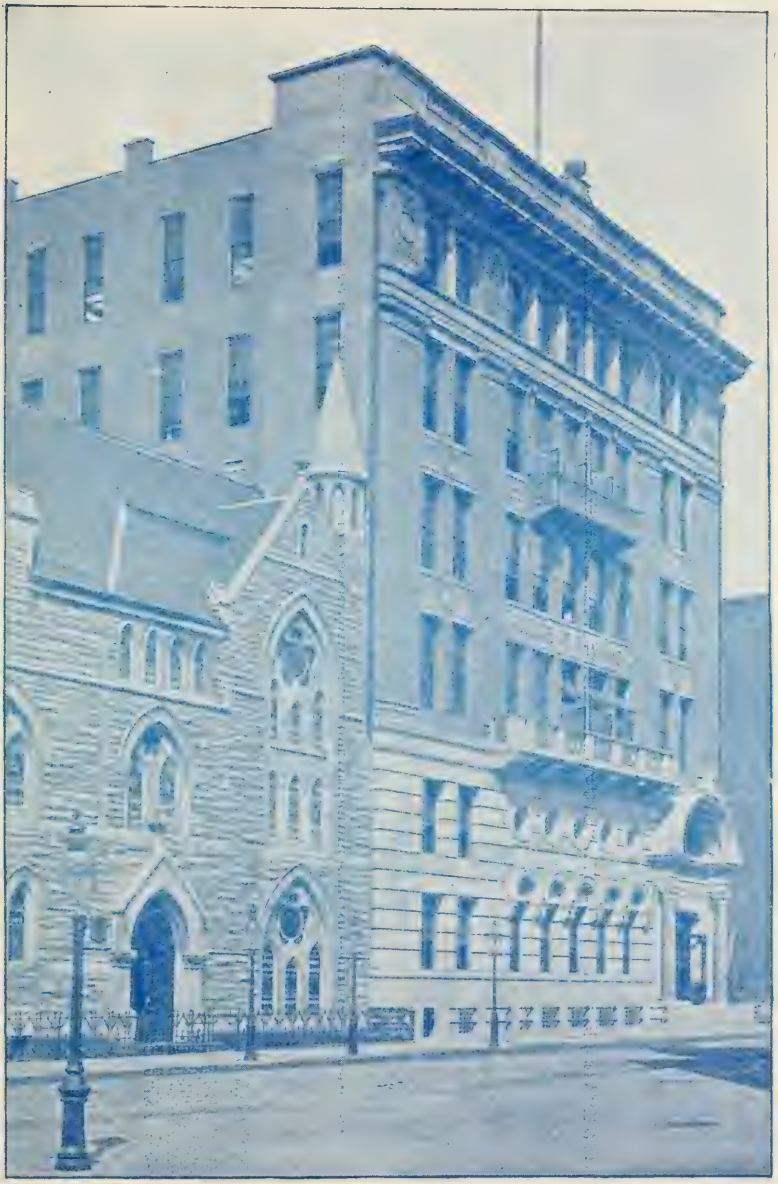
institution without compensation for a time and with inadequate compensation even at the best. It has never received any financial assistance from men outside the ranks of pharmacy, is without endowment, has never received any financial aid from the State and its continued existence and success is due solely to the energy and enthusiasm of Professor Chandler and to others like him who have devoted themselves to the upbuilding of the institution.

In 1879, when the first New York State Board of Health was formed, Professor Chandler was made a member and chairman of the Sanitary Committee. He is a member of the National Academy of Sciences; the American Chemical Society, of which he was president in 1881 and 1889; the American Association for the Advancement of Science; the Society of Chemical Industry of which he was in 1900 the first American to be elected president; the American Institute of Mining Engineers; the American Philosophical Society; the New York Chemists Club, of which he was president from 1899 to 1900; the New York Academy of Sciences; the London Chemical Society; the Deutsche Chemische Gesellschaft, and the Société Chimique de Paris.

President Arthur, who was well acquainted with Professor Chandler, had such a high regard for his scientific abilities that he appointed him a commissioner for the purpose of investigating the subject of American hog products and in 1884 appointed him a delegate from the United States to the Health Exposition in London and the International Medical Congress at Copenhagen.

When William C. Whitney was Secretary of the Navy, he appointed Professor Chandler a member of the commission to investigate the preservation of timber for the Navy, later the President of the National Academy of Sciences, at the request of the Secretary of the Treasury, placed Professor Chandler on commissions to investigate the manufacture of glucose, the denaturing of alcohol, and the waterproofing of fractional currency and bank notes. In the performance of his duties along these various lines Professor Chandler showed marked ability and judgment.

In late years Professor Chandler's services have been frequently sought by great corporations that control processes of manufacture in which a thorough knowledge of chemistry is required. He has not only that thorough knowledge of chemistry, but also an alert mind filled with original ideas. He is known as the highest authority in this country on industrial chemistry, being a specialist in many branches of chemistry. He is an expert on sugar and petroleum refining, the manufacture of gas, and on calico printing. He has served as a chemist to the Croton Aqueduct, the New York Gas Company, and the New York Steam Sugar Refining Company.



The College Building, 115 West Sixty-eighth street. Occupied since 1903.

Professor Chandler has received the following degrees: Master of Arts and Doctor of Philosophy in 1856 from the University of Göttingen; Doctor of Medicine in 1873 from the New York University; Doctor of Laws in 1873 from Union College, Schenectady; and Doctor of Science in 1900, from Oxford University.

Professor Chandler has published more than fifty articles on chemical subjects, some of the more important of which are listed below.

Miscellaneous Chemical Researches. Inaugural Dissertation for the Degree of Doctor of Philosophy. Göttingen, 1856.

Examination of Interesting Urinary Calculi, included in a report of Dr. Alden March. (Printed in the Annual Report of the New York State Medical Society for 1858.)

An investigation on the formation of Alcohol during fermentation. (Published in "Biblical Temperance," by E. C. Delavan, Esq.)

Report on Water for Locomotives and Boiler Incrustations, made to the President and Directors of the New York Central Railroad, including analyses of Waters between Albany and Niagara Falls, and Analyses of Incrustations. (Pamphlet, 8vo. 55 pp. New York, 1865.)

Report on the Petroleum of the Taro, Italy. (8vo. 8 pp. New York, 1866.)

Sanitary Qualities of the Water Supplies of New York and Brooklyn. (Report to the Metropolitan Board of Health. 8vo. 9 pp. New York, 1868.)

A New System of Assay Weights (now used by all Assayers in the United States). Chem. News, Am. Reprint, August, 1869, p. 113.

Analyses of Six New Mineral Springs at Saratoga. (Ibid., Sept., 1869, p. 194.)

Report on the Water Supply of New York and Brooklyn; made to the Metropolitan Board of Health. (8vo. 9 pp. New York, 1870.)

Dangerous Kerosene. Report to the Metropolitan Board of Health (New York, 1869).

The Quality of the Kerosene Oil sold in the Metropolitan District (New York, 1870).

Report on Petroleum as an Illuminator, and the Advantages and Perils which attend its Use, with Special Reference to the Prevention of the Traffic in Dangerous Kerosene and Naphtha; made to the Health Department of the City of New York. (8vo. 110 pp. New York, 1871.)

Report on the Water of the Hudson River; made to the Water Commissioners of the City of Albany. A special discussion of the destruction of the sewage contamination of large rivers, caused by the dissolved oxygen. (8vo. 25 pp. Albany, 1872.)

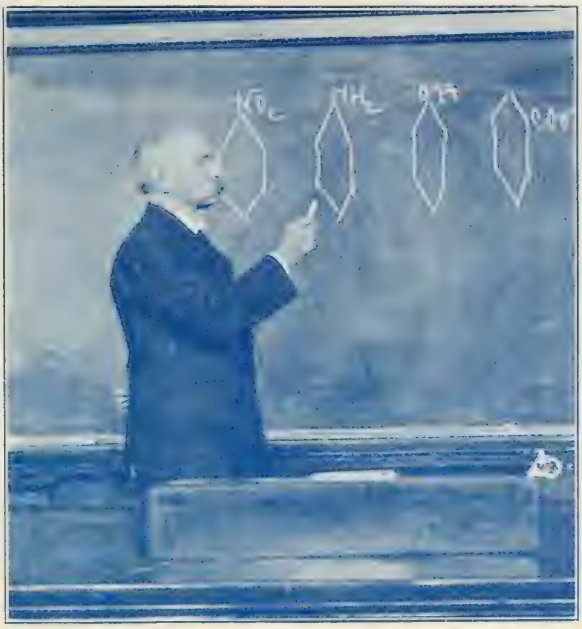
Chemistry of Gas Lighting. (Address delivered before the American Gas Lighting Assoc., Oct., 1875; Oct. 20. Published: Proceedings, Vol. II, p. 81. Also American Gas Light Journal, and in the American Chemist, Vol. VI, p. 242, 1876.)

Presidential address, delivered at the annual meeting of the English Society of Chemical Industry at the Royal Institution, July 18, 1900. (Published in the Journ. Soc. Chem. Industry.)

At the time of the opening of the subway in New York City, Professor Chandler was called upon to analyze the air in the tubes, which many people claimed was injurious to health. He proved by his analyses that the air in the subway was as pure as that above

ground and settled the question quickly and permanently. While president of the Health Department he was a pioneer in the pure food agitation and in conjunction with W. P. Prentice, counsel to the Department, prepared the first State law on the subject.

In recognition of the services which he has rendered to the cause of education and the advances of chemistry the united chemists societies of New York have planned a testimonial dinner to Professor Chandler which will be given at the Waldorf-Astoria Hotel



Dr. Chandler lecturing on the benzene ring.

on April 30th. The Alumni, the faculty and the trustees of Columbia University have issued invitations for a banquet in his honor to be given at the Waldorf-Astoria Hotel on April 2d. On the former occasion the Alumni will present to the University a bronze bust of Professor Chandler in heroic size, and will present to Mrs. Chandler a life size replica of the bust. The trustees, officers, members and Alumni of the College of Pharmacy of the City of New York have tendered him a farewell banquet at the Hotel Astor on Monday evening, March 28th, when he will be presented with a handsome testimonial and for which occasion this special edition of the Alumni Journal is issued as a souvenir. These well deserved honors show that Dr. Chandler has won in the affections of his students and fellow workers by his personal qualities as well as their esteem by his purely intellectual attainments.

PROFESSOR CHANDLER'S FAREWELL ADDRESS.

Reminiscences of Forty-four Years' Service in the Faculty.

At the annual meeting of the College of Pharmacy of the City of New York held on Tuesday evening, March 15, Professor Chandler made a farewell address to the members of the college, this being the last occasion on which he would appear before the members as a member of the faculty, though his duties in the faculty would continue until the close of the present term in June.

His address was wholly informal consisting of scattered reminiscences. He opened his remarks with a reference to the antiquity of pharmacy and to the prominent part that pharmacy had played in the development of chemistry in the middle ages. He mentioned by name many distinguished pharmacists or apothecaries and alchemists of that era on whose work the science of chemistry is based. The list included Basil Valentine, the discoverer of antimony, Paracelsus, who first made medicinal use of mercury, Van Helmont, who first used the preparations of opium in medicine, and to later chemists who began life as apothecaries, including Sir Humphrey Davy, Liebig, and Dumas. He said that he was proud to be associated with an institution devoted to the teaching of apothecaries, particularly in view of the debt which chemistry owed to the apothecary.

The College of Pharmacy.

Taking up the history of the college he spoke of the lofty aims which animated the seventy-two pharmacists who, in 1829, adopted a constitution and by-laws and established an institution for the teaching of pharmacy in New York. He exhibited a copy of the first announcement giving the names of the officers and the first lecturers, Dr. John Torrey, an old friend of his, who lectured on chemistry, and Dr. J. Smith Rogers, who lectured on materia medica and pharmacy. He quoted with approbation the purpose of the institution as set forth in the charter in the following words, that of "Cultivating, improving and making known a knowledge of pharmacy, the collateral branches of sciences, and the best modes of preparing medicines and their compounds, and of giving instruction in the same by public lectures." He congratulated the members upon having adopted a code of ethics which set up lofty ideals which must be lived up to, to secure recognition by the college.

Many professions, he said, had never set forth their ideals in a code of ethics; had never endeavored to place the calling on such a high plane, and it was a source of pride and gratification to him to think that he had been associated with an institution whose ideals had been so lofty.

Professor P. W. Bedford, Who obtained Dr. Chandler's services for the College of Pharmacy.

Coming to his own affiliation with the college he said that in 1864 he had come to New York from Union College to teach at Columbia. In the spring of 1866 Prof. P. W. Bedford called and asked him if he would lecture on chemistry at the College of Pharmacy. "What is it and where is it?" asked Dr. Chandler, as he had never heard of the institution before. Professor Bedford explained that the institution was yet in an undeveloped state, conducted by a handful of pharmacists and attended by only a handful of students, the student body numbering only thirty-two and there being only five graduates at the previous commencement exercises. The work would require two hours time one night a week, he would not be given any salary, but would be given a small allowance for his expenses. He asked for twenty-four hours in which to consider the matter and decided that pharmacists belonged to a class which should have a thorough education, that it was his duty to help in the education and that since this was a good thing to do, he should do it regardless of the matter of remuneration. "My father always taught me," said Dr. Chandler, "that I should ask 'Is this a good thing to do?' If so, I should do it, regardless of whether or not there was anything in it for me. I have no patience with the spirit of those who constantly ask 'What is there in it for me?' When I tell one of my students of some opening which I think he would fill to advantage and the student asks what is the salary I invariably say, 'The salary is of no consequence, the question is can you fill the position and does it offer an opportunity for your development. If it does, then the question of salary will adjust itself.' I finally told Professor Bedford I would take up the work, a decision I have never had cause to regret, for it has brought me into contact with many men of great capacity and of lofty ideals. Through it I have formed many friends whose friendship I shall cherish as long as I may live."

Professor Chandler exhibited the prospectus of the college for the session of 1866-67 in which his name first appeared. The faculty consisted of three members, Ferdinand F. Mayer, who had been a member of the faculty from 1860, occupying the chair of materia medica and botany, P. W. Bedford, who had been professor of practical pharmacy since 1864, and Dr. Chandler. The class of the previous session had thirty-two members whose names are given—one of whom was a woman, Lucy M. Abbott.

A HISTORY DEVOID OF INCIDENT.

Just as a happy woman and a prosperous nation have no history so the steady progress of the college towards increasing prosperity left it devoid of history so far as striking incidents are concerned. Dr. Chandler paid high tribute to the self-sacrificing labors of Professor Bedford who was secretary of the college as well as professor of practical pharmacy, saying that to him, and later to Charles Rice, who became a member of the Board of Trustees in 1870, the college owed more than to any other individuals. He also referred to the distinguished services rendered to the institution by Ewen McIntyre who had served as its president for the thirteen years following 1877, and of Gustavus Ramsperger, who had served for many years as a member of the board of trustees.

His own work had been lightened in 1885 by the addition of Prof. A. H. Elliott to the staff, who first taught physics and later relieved Dr. Chandler of the work on inorganic chemistry.

In 1878 the institution moved from the University Building to East Twenty-third street, and in 1893 again moved to the present handsome and commodious building in Sixty-eighth street. On March 15, 1904, the union of the college with Columbia University was ratified, an occasion which might be looked upon, as Professor Chandler considered, as the culmination of the success of the institution. The proposal for this union had emanated from the university and constituted the highest compliment that could be paid to the college as one fit to be an integral part of one of the greatest universities in the world.

Work on the Board of Health.

Among the faculty who had been associated with him was one man, Dr. Day, who had also been associated with him in the work on the Board of Health. As president of that board in 1873 he had undertaken to improve the sanitary conditions in the city in view of the epidemic of cholera in Memphis which was spreading northward. The dealers in Washington market had built out their stalls

so as to occupy fully half the street all around the market. This was illegal and the conditions were highly unsanitary. The Board of Encumbrances refused to obey his orders to remove the stalls. The police likewise refused. The marketmen inquired whether a purse of $50,000 would "square the matter." Threats of personal violence were also made. Dr. Chandler was haled into court to show cause why a preliminary injunction should not be issued restraining him from tearing down the structure. The judge declined to issue a preliminary injunction, but said that at 10 o'clock next day he would be required to show cause why an injunction should not be issued. On leaving the court room his counsel said "this means that what you do between now and 10 o'clock tomorrow morning will be legal. What you may do after that time depends on what the court may say." He found an old German house-wrecker who for $2,500 would demolish and remove the structure. But he could not pay $1,000 without advertising for bids. He offered the wrecker $990 to demolish the buildings and offered his foreman on a separate contract $990 to remove them. He went before the Board of Police Commissioners demanding police protection for the wreckers. The commissioners laughed in his face. He told them that he would at once prepare and file an affidavit that he had made formal demand for police protection for his men, which had been refused. This affidavit would be placed where it would settle definitely the responsibility for any rioting that might occur. He went to his own offices in the same building, and in a few minutes received word that the police protection would be forthcoming. He sent sixty of his own sanitary police to remove the contents of the stalls to the inner portion of the market and 300 regular police formed a cordon around the structure. The work began at 8 o'clock in the evening and by 10 o'clock next morning all of the structure that projected beyond the curb had been demolished and removed and the pavement, which had not seen the light of day for forty years, had been washed clean by the

Dr. Charles Rice.

Street Cleaning Department. When the case was called in the court a laugh went round, for there was nothing for the court to do.

Caring for Smallpox.

In the winter of 1874-5, 3,000 cases of smallpox were reported, with 1,200 deaths. The patients were sent to Blackwell's Island and were nursed by the "seven day drunks." The principal medicine administered consisted of whisky. The nurses drank most of this. The tales of the cruelty and indifference with which the invalids were treated reached the poorer sections of the city and the families of the patients refused to report them. As a consequence the first intimation of the presence of a smallpox case came when an entire tenement had been infected. The patients were under the rule of the Department of Charities. One afternoon at 4 o'clock Dr. Chandler received a telegram that a bill had been passed at Albany and signed by the Governor giving the Health Department jurisdiction. He had himself vaccinated, and visited the hospital for smallpox so that he might see for himself the true state of affairs, seeing then a case of smallpox for the first time. At the request of Health Commissioner Stephen Smith and himself, Archbishop McCloskey furnished fourteen Sisters of Charity to take the place of the "seven day drunk" nurses. Instead of having an ambulance back up to a tenement to take a man away he put into commission a well appointed carriage with two handsome gray horses and a man in livery on the box. As a consequence smallpox patients went away in style and the presence of the sisters gave assurance to the poor of the east side that they would be properly treated. Thereafter no effort was made to conceal cases of smallpox, general vaccination was resorted to and within a few months the disease had disappeared from Manhattan Island.

Friends in Every Pharmacy.

In conclusion, Dr. Chandler said, "Wherever I see the green and red lights of the apothecary in New York there I know I have a friend. I never go into a drug store but that some one comes up and tells me he was of the class of '69, of '80, or possibly a junior student still. Sometimes they are boys but newly matriculated at college. Sometimes they are old gray haired men whose stooping shoulders and faltering footsteps make them seem older than I myself; always they are friends. This has been my highest reward, this has been my most cherished compensation. The feeling that I may have helped in the upbuilding of the institution, have aided in the formation of the minds of the rising generation of pharmacists and that this help has brought me the friendship of my students is a source of pride and will remain a source of pleasure so long as I live. Although this has been announced as a farewell address, I shall not say farewell, for so long as I am able to go anywhere, I shall come to the meetings of the New York College of Pharmacy, there to meet the friends of a lifetime, dear friends, from whom I hope never to part."

THE CENTENNIAL OF CHEMISTRY.

The centennial of the discovery of oxygen. This celebration at the grave of Priestley in Northumberland, Pa., in 1874, led to the formation of the American Chemical Society. Dr. Chandler is the seventh figure from the left in the second row. Mr. B. G. Amend, Professor Maisch, Dr. Fr. Hoffmann and Professor Bedford are in the center and Professor Remington is the bearded figure at the right in the background.

Menu

CAPE COD OYSTERS

GREEN TURTLE A L'ANGLAISE
Hors D'Œuvres Variés

FILETS OF STRIPED BASS, JOINVILLE
Potatoes Parisienne

TOURNEDOS DE BŒUF, RICHELIEU
Tomatoes Farcies Haricots Verts Panachés

QUENELLES OF CAPON, EDOUARD VII
Riz a L'Indienne

SORBET CREME DE MENTHE

ROAST ROYAL SQUABS AU CRESSON
Salade Kuroki

PUDDING NELUSKO
PETITS FOURS FRUITS ASSORTIS

CAFE NOIR

DINNER TO PROFESSOR CHARLES F. CHANDLER BY THE COLLEGE OF PHARMACY OF THE CITY OF NEW YORK, COLUMBIA UNIVERSITY, HOTEL ASTOR, MARCH 28, 1910

Chateau Doisy Barsac, 1900
Chateau La Rose - - 1900
Apollinaris

VOL. XVII. APRIL, 1910. No. 4.

The Alumni Journal

Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eightieth Annual Course of Instruction of this College began on the 27th day of September, 1909.

Two undergraduate and two graduate programs of study are offered.

The College Course of two years, open to those possessing 15 Regents' counts (one year of high school) leads to the degree of Graduate in Pharmacy, conferred by the College.

The University Course of two years, open to those possessing 60 Regents' counts (graduate from high school) leads to the degree of Pharmaceutical Chemist, conferred by the University.

The Food and Drug Course of one year, designed to prepare for food and drug inspectorship, is open to anyone capable of performing the work. It requires a good knowledge of analytical chemistry and vegetable histology, laboratory as well as theoretical. Those requiring special training may attend our Summer Preparatory Course. Great improvements have been made in our Food and Drug Course for 1910.

Our Graduate Course, of one year, open to our Pharmaceutical Chemists or other graduates of equal rank, leads to the degree of Doctor of Pharmacy, conferred by the University. Our certificate for an additional optional year is recognized by the federal food and drug authorities as the equivalent of the B. S. degree.

For information, address,

THOS. F. MAIN, Secretary,
115-119 West 68th St., New York City.

... The ...

Alumni Journal

Published monthly in the interest of the Alumni Association of the College of Pharmacy of the City of New York.
Pharmaceutical Department of Columbia University.

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CHAS. A. LOTZ, PH.G., EDITOR CURT. P. WIMMER, PHAR D., ASSOCIATE EDITOR

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All Original Contributions, Exchanges, Books for Reviews, Business and Editorial Communications, etc., should be addressed to The Alumni Journal, 43 Fulton Street, New York City.

AN ACKNOWLEDGEMENT.

At a recent meeting of the Alumni Association, the following motion was unanimously adopted:

"Since the social as well as financial success of our recent ball was, in a large measure, due to the liberal support given us by the wholesale trade, it is ordered that an acknowledgement of this fact be published in the Alumni Journal, and that a marked copy of the issue be mailed to each contributing firm."

The Alumni Association is deeply indebted for the support given and desires to express, hereby, its gratitude.

TESTIMONIAL DINNER
TENDERED TO PROF. CHAS. F. CHANDLER
AT THE HOTEL ASTOR, MARCH 28th, 1910.

The testimonial dinner tendered to Professor Charles F. Chandler at the Hotel Astor, on Monday Evening, March 28th, by the College of Pharmacy of the City of New York, was one of the most successful

affairs of its kind in the history of the College. There was a good number of participants. The Alumni Association was well represented as well as the College. A very good Menu was offered and liked by all.

Dr. Chandler was presented with a handsome Morocco Album, with engrossed resolutions, and the signatures of all those present. The Class of 1888 presented a beautiful Silver Loving Cup.

Toastmaster Samuel W. Fairchild introduced Professor Chandler as the guest of honor in a very eloquent manner, and the Professor responded saying that the demonstration was altogether overwhelming. He gave a brief sketch of his connection with the College, relating the incidents which led to his taking the chair of Chemistry in 1867.

The various speakers were introduced by Mr. Fairchild, spoke in true endearment of Prof. Chandler. Prof. Remington of Philadelphia, who was a guest, was one of the principal speakers. Professors Rusby and Coblentz did their share in eulogy of Dr. Chandler. Prof. Diekman made the presentation speech for the Loving Cup presented to Prof. Chandler by the Class of 1888. Mr. Ewen McIntyre, Sr., related some incidents about Dr. Chandler, and Mr. Plant, Mr. Fraser and Dr Muir spoke on similar subjects.

CLASS NOTES.

Fred. Borgreve, class '94, has for the past year been representing the American Druggist Publishing Co., of 66 West Broadway, New York, covering all the Western States and has just returned from a very successful trip for this house. He expects to go through the Southern States next.

John Schlegel, class 1900, gold medal man, received the degree of Phar. D. from Columbia in 1907. He is now with a Sugar Refining Company in Long Island City.

Joseph N. Shatzkin, class '08, has been appointed Chief Pharmacist to the Jewish Hospital of Brooklyn. He will no doubt fill the position acceptably.

William H. Koch, class '06, is holding forth with E. A. Hough, a Pharmacist of Collinsville, Conn. Mr. Koch has been in this position ever since he gratuated, which proves that his services are appreciated.

SCHEELE, THE CHEMIST.

By Victor Robinson.

(*Continued from February Issue.*)

After Copernicus there was no more excuse for astrology; after Darwin there was no more reason for immutability; and after Lavoisier there was no further justification for phlogiston. But the roots of pre-conceived notions are long and strong, and take generations to uproot. Only one chemist of that age accepted the new truth. Sole among contemporary scientists, Joseph Black—forever illustrious as the discoverer of latent and specific heat—announced himself an adherent of the Lavoiserian doctrine of combustion.

Priestley, Cavendish and Scheele remained firm believers in the phlogistic theory which their researches had done so much to upset.

So Scheele was wrong; what of it? When such a man makes an occasional error, we are not displeased. His mistake brings him nearer to ourselves. We are so faulty, we are hardly attracted by absolute perfection.

Without hesitation let us acknowledge Scheele's limitations, and assert that he found chemistry an eyeless infant, and left her a keen-visioned adult. He outranks Octavius who found a Rome of brick and left a Rome of marble.

* * * * * *

Science has a sorrowful list of wondrous youngsters who disappeared from life when the brain was still eager and the spirit ardent. Scheele was one of these. In his forty-fourth year he was added to the roll of short-lived geniuses. Yet though the days of his life were few, he labored long and lovingly, for he was in the service of science, and some of the benefits he rendered her are here recorded:

In 1769, while still in his twenties, he experimented with Cream of Tartar ($KHC_4H_4O_6$), from which compound he was the first to isolate Tartaric Acid ($H_2C_4H_4O_6$). He sent a record of his experiments to Torbern Bergmann, the foremost Swedish chemist. The professor was a generous friend, but at this time must have been absorbed in his own work, for he failed to convey the paper to the Academy of Sciences at Stockholm, which, however, was later done by Anders Retzius.

As far back as 1669 the alchemist Brandt of Hamburg, while searching for the "philosopher's stone" that converts lead to silver

and ennobles brass to gold, distilled an evaporated mixture of urine and sand, and obtained, not the "elixir of life," but—Phosphorus. This yellow waxy solid which shone so mysteriously in the dark, and burned with such a dazzling light, was exhibited in the courts of Europe and attracted the attention of lords and ladies who had never previously evinced a startling congenital predisposition for scientific pursuits. Phosphorus is used in medicine as a sexual aphrodisiac, and it would be interesting to know if it was the Merry Monarch and his royal revellers who discovered this therapeutic fact.

For a hundred years the peculiar phosphorescent element remained a chemical curiosity, costing about sixteen ducats an ounce. But in 1771, Scheele—building on Gahn's observation that Phosphorus is a constituent of bone-ash—published a method still used in preparing the Light-Bringer. Bones are burned to remove all animal matter, and the remaining Calcium Phosphate is heated with hot Sulphuric Acid, producing Phosphoric Acid and Calcium Sulphate. The acid is then strained from the sulphate, concentrated, mixed with charcoal and dried in an iron pot. Water escapes and Metaphosphoric Acid remains. The mixture is then transferred to a fireclay retort, strongly heated, and under the water appears the desired phosphorus:

$$\underset{\text{[Calcium Phosphate]}}{Ca_3(PO_4)_2} + \underset{\text{[Sulphuric Acid]}}{3H_2SO_4}$$

$$\underset{\text{[Phosphoric Acid]}}{2H_3PO_4} + \underset{\text{[Calcium Sulphate]}}{3CaSO_4}$$

$$\underset{\text{[Phosphoric Acid]}}{2H_3PO_4} = \underset{\text{[Metaphosphoric Acid]}}{2HPO_3} + \underset{\text{[Water]}}{2H_2O}$$

$$\underset{\text{[Metaphosphoric Acid]}}{4HPO_3} + \underset{\text{[Carbon]}}{12C} = \underset{\text{[Hydrogen]}}{2H_2} + \underset{\text{[Carbon Monoxide]}}{12CO} + \underset{\text{[Phosphorus]}}{P_4}$$

Its principal modification is the red or amorphous Phosphorus discovered by Professor Schrotter, of Vienna. Although prepared from the yellow variety, its properties are essentially opposite. It is practically odorless, non-poisonous, non-phosphorescent, insoluble in Carbon Disulphide, non-decomposable in the air.

Both the yellow and the red Phosphorus are employed in the manufacture of matches. Sweden is the world leader in this instance, and exports yearly, I suppose, about one hundred billion of these fire-tipped splinters.

The ordinary match which we buy at the grocery stores is made by dipping the wooden sticks—impregnated with paraffin or sulphur to sustain combustion—in a warm adhesive agent containing an

emulsion of yellow Phosphorus as the oxidizable constituent, Potassium Chlorate and Manganese Dioxide as the oxidizing components, and powdered glass as the frictional element.

Such a match is a remarkably convenient article, as it can easily ignite on the sole of a gentleman's shoe or the back of his trousers. The splint may be broken, but as long as he can find the head at the bottom of his pockets he carries with him the conscious power to set clouds of happy smoke curling from the burning altar of Nicotia.

Unfortunately this match is a menace to safety; it starts innumerable, accidental fires, and children die from sucking and chewing it. It will be recalled that Longfellow's first wife, clothed in a light summer dress, happened to step on one of these matches which instantly fed upon her garments and burned her to death.

The Swedish sulphur match is free from this disadvantage, and can be stepped on with impunity, but children should not be encouraged to use it as a substitute for caramels. The head contains Potassium Chlorate, Potassium Dichromate, red Oxide of Lead and Antimony Sulphide. The oxidizable material on which the match ignites is on the sides of the box, which consist of Red Phosphorus, Antimony Sulphide and powdered Silica.

In 1771 Scheele investigated the composition of Fluospar and noted that the property of etching glass when mixed with Sulphuric Acid was due to the formation of an acid which he called Fluor Acid. Scheele's operations had been conducted in glass vessels and what he really obtained was Fluo-Silicic Acid.

In 1774 Scheele showed the difference between Pyrolusite (Manganese Dioxide) and Magnetite, which previous chemists had considered identical.

He explained how Manganese colorizes and decolorizes glass, and distinguished the salts of the lustrous metal, including the green and purple compounds with potash. In fact, he may be considered the discoverer of this element.

In this year he also discovered Baryta (Barium Oxide), a heavy, whitish-gray, poisonous compound, used for plate-glass manufacture, in color-making, and in the preparation of Oxygen by the Brin process:

$$BaO + O = BaO_2 = BaO + O$$

This should have been enough for one year, and Scheele ought to have remembered that Nature herself sleeps half the time, but instead of that he discovered Chlorine in the following way:

$$MnO_2 + 4HCl = MnCl_2 + 2H_2O + Cl_2$$

Scheele thought this gas was a compound and called it Dephlogisticated Muriatic Acid. Its elementary character was established in 1810 by Davy. He named it Chlorine on account of its greenish color.

Nor was this all, for this self-same fertile year saw his discovery of Oxygen—independently of Priestley's revelation—by heating Manganese Dioxide to redness in an iron or clay retort:

$$3MnO_2 = Mn_3O_4 + O_2$$

Subsequently Scheele found an improved method of obtaining this gas—by heating Manganese Dioxide with Sulphuric Acid. When Manganese Dioxide is heated alone, 100 grams of it yield 8.51 liters of Oxygen, but when treated with Sulphuric Acid, 100 grams produce 12.82 liters of Oxygen. The reaction is now familiar to every novice, and medical and pharmaceutical colleges ask it in the early quizzes:

$$2MnO_2 + 2H_2SO_4 = 2MnSO_4 + 2H_2O + O_2$$

He shrewdly speculated as to its function in respiration and the growth of plants, and computed the amount of Oxygen in the atmosphere correctly. The term Oxygen (so named by Lavoisier) means "acid producer" and is therefore a misnomer, as all acids do not contain Oxygen. Hydrogen should be called Oxygen, because all acids contain Hydrogen.

Previously to the discovery of Oxygen, Professor Daniel Rutherford of the University of Edinburgh, observed that by absorbing the Carbon Dioxide produced by respiration in an enclosed volume of air, the remaining gas would support neither combustion nor respiration. But it took a long time for scientific news to reach the sequestered (to use Washington Irving's favorite adjective) Swedish town in those days, and just as Scheele had discovered Oxygen independently of Priestley, he also discovered Nitrogen without knowledge of the Scottish naturalist's observation. Nitrogen offers little encouragement to the experimenter. If he collects a jar of the gas and introduces a candle in it, the candle goes out. If he put a mouse there, the mouse dies. Scheele was the first then who demonstrated, by analysis and synthesis, that the air consists mainly of two gases, one supporting combustion and the other preventing it.

The year 1775 was as stirring for Scheele as it was for the English colonies in America. The price of potash salts was increasing enormously, and attempts were made to produce the carbonates from common salt. The French Academy of Sciences offered 2,400 livres to any one who would succeed in converting salt to soda. Scheele

at once solved the problem, and made soda from salt by means of litharge. Did he use the much-needed prize-money for the purpose of ———? Ssh! your hand to your ear, promise not to tell, and I'll whisper you a secret: He received not a sou.

Scheele separated Benzoic Acid from Benzoin by combining it with a salifiable base and precipitating it with an acid. Later Scheele prepared it from urine by the decomposition of Hippuric Acid. When Benzoic Acid is taken into the system, it unites with Glycocine with the elimination of a molecule of water, and is excreted as Hippuric Acid. We have thus an excellent instance of synthesis performed in the marvellous laboratory of the human body, which needs no Friedrich Wöhler:

$$C_6H_5.COOH + \begin{vmatrix} CH_2.NH_2 \\ COOH \end{vmatrix} = \begin{vmatrix} HC_2NH.CO.C_6H_5 \\ COOH \end{vmatrix} + H_2O$$

[Benzoic Acid] [Glycocine] [Hippuric Acid] [Water]

He investigated Arsenic Acid, a colorless crystalline compound used in calico-printing. This led to his discovery of Arseniureted Hydrogen.

By adding a solution of Copper Sulphate to Sodium Arsenite, he obtained the grass-green salt of Cupric Arsenite:

$$CuSO_4 + Na_2HAsO_3 =$$

[Copper Sulphate] [Sodium Arsenite]

$$CuHAsO_3 + Na_2SO_4$$

[Copper Arsenite] [Sodium Sulphate]

This powder is well known as Scheele's green. It is exceedingly poisonous, is used as a pigment, and in the treatment of anaemia, diarrhea, enterocolitis and cholera morbus.

He made researches into the constitution of clay, quartz and alum. Needless to say, his work on the alums was not nearly so important as Bergmann's.

He experimented with calculus, an animal concretion formed in various parts of the body, from which he was the first to secure Uric Acid. Human urine contains only a fraction of one per cent. of Uric Acid, but it is the principal nitrogenous constituent of the urine of birds and reptiles. Out of the three pints of urine daily excreted by the average healthy man, from .4 to .8 grams is Uric Acid.

In 1777 he published his book, "A Chemical Treatise on Air and Fire." Can the Baltic Sea be put in a tub? Neither can the gist of this great volume be compressed into the space of one little article.

By heating Sulphur with Hydrogen, he obtained Hydrogen Sulphide, and was the first to investigate this ill-smelling compound which gives the odor to the rotten egg. It is extensively employed in laboratories as a group precipitant and reducing agent. It was formerly used as an intestinal disinfectant, but fortunately "the H_2S wash-out" now belongs to the past.

Scheele's name is intimately connected with the origin of photography, for it was he who scientifically investigated the darkening action of sunlight on Silver Chloride. Further, by means of a prism he threw the colored band of light upon a surface sensitized with Silver Chloride, and noticed that the violet rays blackened it more readily than the other colors of the spectrum. By utilizing Scheele's experiments, Thomas Wedgwood of England produced a photograph.

Of course there is rarely an absolutely new discovery in science, and if we wish to go a little further back we can see Johann Schulze working by a window—when the weather was warm and the sun was shining. He wishes to treat some Calcium Carbonate with Nitric Acid, and it so chances that the acid he uses has some silver dissolved in it. He pours it on the chalk, the rays from the sun fall on the mixture and turn it black, while Johann is highly amazed to find that the effect of light is darkness!

If we travel back still more, we learn that some sort of a beginning of photographic chemistry originated with the alchemists, and if no one has yet demonstrated that Aristotle was the original camera-fiend, some one will come to the rescue in the near future.

Gladly giving due credit to all concerned, the fact remains that Scheele was the first who applied chemical and spectrum analysis to photography, which in the hands of the skilful has become a noble science and a fine art.

In 1778 he described a new method of procuring Calomel, the most valuable of the mercurial preparations.

He proposed a new way of making the powder of Algaroth, the purgative and emetic named after the physician Algarotus of Verona.

He examined Molybdenite, which was thought to contain Lead. He proved the contrary and secured from the mineral, Molybdic Acid.

In 1779 Scheele showed that Plumbago consists almost wholly of Carbon. During this year he published records of his former experiments.

In 1780 he discovered Lactic Acid and showed it to be the cause of sour milk, as the sugar of milk is transmuted to acid:

$$C_{12}H_{22}O_{11}.H_2O = 4C_3H_6O_3$$
[Milk Sugar] [Lactic Acid]

A quarter of a century later, Lagrange and Fourcroy and Vauquelin claimed that Scheele's new acid was merely impure Acetic, and though Berzelius—discoverer of Sarcolactic Acid in the juices of the flesh—combated this opinion, it was only in 1832, when Liebig and Mitscherlich analyzed the lactates, that the matter was definitely settled.

Just at present the distinguished Metchnikoff has brought Lactic Acid into extraordinary prominence. Everyone anxious to prolong his visit to Mother Earth is making and drinking "buttermilk." Numerous manufacturers are offering the Lactic Acid bacillus in all forms from loose powders to compressed tablets. Suspensions of the living Lactic Acid bacillus are now used in diseases of the nose and throat, and in genito-urinary work.

By boiling Milk Sugar with Nitric Acid, he obtained Mucic Acid. It is a white crystalline powder, practically insoluble in water, and on further oxidation yields Racemic Acid, an insomeric modification of Tartaric Acid, first obtained artificially in 1863 by Pasteur.

In 1781, he discovered the composition of the vitreous mineral Tungsten. It has since been called Scheelite. He obtained from it, Tungstic Acid, which by means of Nitric Acid is precipitated as yellow crystals from solutions of tungstates.

In 1782 he experimented with that highly volatile and inflammable liquid, Ether.

In 1783 Scheele boiled Olive Oil, Litharge and Water to get Lead Plaster. He obtained the plaster, but noticed also a liquid which was strange to him. He tasted it; it was sweet; it was Glycerin! So another important reaction was written down on Scheele's scroll:

$$2C_3H_5(C_{18}H_{33}O_2)_3 + 3PbO + 3H_2O = \ .$$
[Olive Oil] [Litharge] [Water]

$$3Pb(C_{18}H_{33}O_2)_2 + 2C_3H_5(OH)_3$$
[Lead Oleate] [Glycerin]

This thick, oily, mawkishly sweet substance is now one of the indispensible necessities of the drug-store. "Glycerin," says Remington, "is one of the most valuable liquids known to pharmacy." If all the girls who rub Glycerin on their hands at night to keep

them nice and soft, were to lay a sweet-smelling flower on Scheele's grave, the hanging gardens of Babylon would be outdone.

The remaining years of Scheele's life were devoted to the products from the acid saccharine fruits. He thus completed a cycle, for his first and last discoveries were made in the wide domain of the vegetable acids.

He extracted Citric Acid from lemons by a process still used. The boiling juice is first completely saturated with finely powdered Calcium Carbonate, and the resulting precipitate of Calcium Citrate allowed to subside. When it is repeatedly washed with water and decomposed by dilute Sulphuric Acid, an insoluble Calcium Sulphate separates out, and the coveted Citric Acid remains in solution. This is then carefully concentrated in leaden boilers until a pellicle begins to form, when it is transferred to other vessels to cool and crystallize. Twenty gallons of lemon-juice should yield about ten pounds of the crystallized Citric Acid.

Though Citric Acid is usually obtained from lemons or limes, it exists also in the juice of the gooseberry, strawberry, raspberry, cranberry, currant, cherry, orange, and of course many other fruits.

The world is small nowadays, and to make Citric Acid for commercial purposes, we get lemon-juice from Sicily, lime-juice from the West Indies, and bergamot-juice from the Calabrian coast. Citric Acid has been prepared artificially by Grimaux and Adam, who started with Glycerin, produced Chloro- and Cyano-derivatives, and finally got Citric Acid itself. Recently, Carl Wehmer has discovered that sugar solutions, if exposed to the action of certain mould fungi, become transformed into Citric Acid, and it is thought that this method of manufacture may replace the extraction from lemon-juice.

In several of the world's Pharmacopoeias, Citric Acid has for its immediate neighbor another of Scheele's discoveries—Gallic Acid. Gallic Acid exists free in nutgalls, in the leaves of the bearberry, in the root-bark of the pomegranate, and other vegetable substances. It is often found combined as a glucoside. It is prepared from the tannin of nutgalls, either by the action of dilute acids or by the change due to mould growths. Gallic Acid is used in chyluria, pyrosis, diarrhea, dysentery, tabes, rickets, scarlatinal albuminaria, hematemesis, menorrhagia, in checking the night-sweats of phthisis and other pathological conditions.

Malic Acid is likewise in Scheele's Document of Discoveries. It is a deliquescent crystalline compound, with a pleasant acid taste, and occurs in the juice of most sour fruits. The most interesting characteristic of Malic Acid is the fact that it furnishes us with a

remarkable example of physical isomerism, for when naturally obtained it rotates the plane of polarization, but when artificially prepared is optically inactive.

On oxidizing Sugar with Nitric Acid, Scheele obtained an organic acid which he named Saccharic Acid, now called Oxalic Acid. Oxalic Acid is almost universally distributed throughout the vegetable kingdom. From Water and Carbon Dioxide, by means of sunlight and chlorophyll grains, plants build up this compound:

$$2CO_2 + H_2O = (COOH)_2 + O$$

The acid then combines with Calcium Carbonate and forms the crystalline Calcium Oxalate so valuable to the pharmacognoscist as a means of recognition of powdered drugs:

$$(COOH)_2 + CaCO_3 =$$

[Oxalic Acid] [Calcium Carbonate]

$$CaC_2O_4 + H_3O + CO_2$$

[Calcium Oxalate] [Water] [Carbon Dioxide]

These crystals of Calcium Oxalate are divided into classes: Rosette, Monoclinic or Cubical, Raphide or Needle-shaped, and Cryto-crystalline. As not only the class but even the size is peculiar to certain plants, the microscopist finds it an important element in identification. For instance, Rosette crystals up to 25 microns are found in Buchu, up to 35 microns in Pilocarpus, up to 100 microns in Gaultheria, while the Monoclinic crystals up to 10 microns exist in Uvi Ursi, up to 20 microns in Hamamelis, up to 30 microns in Eucalyptus, and Raphide crystals occur in Phytolacca, and Cryptocrystalline in Tobacco leaves.

Because of the certainty and celerity of its action, Oxalic may supplant Carbolic Acid as the favorite of suicides when the dreaded phenol—on account of its ceaseless havoc among the laity—is altogether ousted from pharmacy. Oxalic Acid can kill a human being in three minutes. Because of its resemblance to Epsom salts it has on several occasions been taken in mistake for that much-used saline purgative.

The only acid Scheele discovered which is called by his name is Scheele's Dilute Hydrocyanic Acid (Prussic Acid), obtained by him from Prussian blue. It is four or five per cent., the official Acidum Hyrdocyanicum Dilutum of our Pharmacopoeia being half that strentgth. In the concentrated form it is a rarity to be found only in the laboratories.

Prussic Acid is found in the pits of apples, in the kernal of the peach and in the leaves of the laurel. If these are consumed in quantities, alarming—even if unexpected—illness may result. The

acid occurs also in bitter almonds, and when their pulp is distilled we obtain the most poisonous of our official oils. Prussic Acid is another standby of those intent on self-destruction, not only in real life, but in fiction. For instance, in Grant Allen's **The Woman Who Did,** the heroine Herminia—after being abused by her daughter—kills herself by drinking Prussic Acid. A remarkable feature of this deadly poison is the astonishing rapidity with which it causes death. A thief, who was pursued, swallowed a dose, staggered a few steps, fell to the ground and very soon expired. A drop of the pure acid can kill a frisky dog in a second. Professor Doremus in an interesting letter to that monumental masterpiece, the **Standard Dictionary,** says: "I have held a drop of anhydrous hydrocyanic acid on a glass rod and brought it toward a live rabbit. Before it reached the animal, he dropped dead from inhaling the vapor."

It is said that Scheele himself was suddenly killed by inhaling the vapors of the terrible poison he discovered, but I hardly think this is the case.

The series of experiments which Scheele conducted in connection with Prussian blue—laying the important foundation of our present knowledge of the Cyanides—has excited the enthusiasm of modern chemists, and with a tribute on this topic from the learned pen of Professor John Ferguson of the University of Glasgow, I close my meagre account of Scheele's momentous work:

"In 1782-1783 appeared a research which—of all those Scheele conducted—exhibits his experimental genius at its very best. By a wonderful succession of experiments he showed that the coloring matter of Prussian blue could not be produced without the presence of a substance of the nature of an acid, to which was ultimately given the name of Prussic Acid. He showed how this body was composed, described its properites and compounds, and mentioned its smell and taste, utterly unaware of its deadly character. Nothing but a study of Scheele's own memoir can give an adequate notion of the manner in which he attacked and solved a problem so difficult and complicated as this was at the period in the history of chemistry when Scheele lived. . . . His accuracy, qualitative and quantitative, considering his primitive apparatus, his want of assistance, his place of residence, the undeveloped state of chemical and physical science,—was unrivalled. He grudged no labor to make the truth indisputable; and he evidently never considered his work complete about any body unless he could both unmake and remake it. For him chemistry was both an analytic and a synthetic science, and he shows this prominently in his re-

searches on Prussian blue. . . . The one aim of Scheele's life—and he never swerved from it—was the experimental discovery of the truth in nature."

This was Scheele's aim. Whose aim was higher? This is what Scheele did. Who has done better?

* * * * * *

High are the pointed peaks of Sulitelma, O Sweden, where the cooling cataracts rush down the crags of the mountain. In the Baltic is the island of Oland whose rocks of Silurian limestone have battled for centuries with the god of storms. Near the North Cape rises a mighty slab of granite, thousands of feet in height, with every niche containing the nest of an Arctic bird. Calm are the waters of Maelar, and the falls of Motala turn the wheels of many mills. The lake of Vener is large, and Tornea Elf flows down to the sea. Famed is the hill of Kinnekulle, and who knows not the forest of Kolmorden? Uto is rich in the ores of iron, copper is found in Falu, and silver at Sala. There are mines of magnetite and hyperite, of granulite and dolomite. Among the trees of fir and pine the elk and roe-deer search for browsage, and the fleet-footed hare leaps through the brush. The vain cuckoo calls its name by day, but the night knows the bat and badger. Droves of leaping salmon crowd the rivers, and the herrings swim from the sea to spawn in the shoals. Over the snowy fields the great-horned reindeer wander, the whooper swan sails in the lakes of Lapland, and high in the frosty air soars the gyrfalcon and the golden eagle. Great indeed is the spectacle of the Midnight Sun, and when the Aurora Borealis flashes its dancing columns across the startled skies, the beholder stands with reverent heart and uplifted hand.

Yet boast not of these things, Sweden. Huge kings have sat on thine ancient throne, and hurled stout armies at the frightened nations. But be not proud of them. Do not sing of the Olafs and Erics, and seek not to perpetuate the memories of the vikings of old. We are sick of the bloody sagas of the skalds, and the fierce berserkers who cried Was-hael among the reddish fiords. We have heard quite enough of your battle-axes, and we close our ears at the sound of the hammer of Thor. Forget that victory at Narva, and scratch out the name of Charles XII.

Sweden, thou hast a greater glory. Thy name is on the lips of thinkers, and when the spirit of Science calls the roll of nations who have served her, thou canst answer in a triumphant voice, for thou hast produced Karl Wilhelm Scheele.

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THE Alumni Journal

Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

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... The ...

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ANNUAL MEETING OF THE ALUMNI ASSOCIATION.

The annual meeting of the Alumni Association of the College of Pharmacy of the City of New York was held in the Alumni Room of the College on Wednesday evening, April 13th, at 8:30 P. M., with President Herold in the chair.

Secretary Wimmer read the minutes of the preceding meeting, which were approved as read and ordered placed on file.

The treasurer's annual report was read by Dr. Diekman and was ordered spread on the minutes as read and approved. The treasurer's books were ordered to be audited by the proper committee in the month of June as per article 3, section 2 of the new By-Laws.

The registrar made his annual report and a rising vote was taken with due respect to those members who had departed this life during the past year.

The Property Committee, Dr. Ballard, chairman, made its annual report, enumerating in detail the property belonging to the Association.

The Hanging Committee, Mr. Henning, chairman, reported progress in that the various pictures which had become the property of the Association during the past year had been hung—likewise the same gentleman, a committee of one on prizes, reported that the Senior and Junior prizes were in readiness to be presented at the proper time. Various other committees, namely, Ball Hall Committee for 1911, Entertainment Committee, etc., made their reports.

After the unfinished and new business was carried on and attended to, a recess of five minutes was called by the president, previous to the election of new officers for the ensuing year. The following new officers were elected, Messrs. Fried and Lotz acting as tellers (Mr. Lotz taking the place of Mr. Binder, who resigned as teller):

For Honorary President—Mr. Ewen McIntyre, Sr.

For President, Dr. Leo W. Geisler.

For 1st Vice-President, Dr. Eide Thode.

For 2nd Vice-President, Dr. Joseph Weinstein.

For 3rd Vice-President, Mr. J. A. Steffens.

For Secretary, Dr. C. P. Wimmer.

For Treasurer, Dr. Geo. C. Diekman.

For Registrar, Dr. F. A. Leslie.

For three members of the executive board to hold office for three years in place of those whose terms have expired:

Dr. Anton Vorisek,

Mr. William Pruss,

Mr. H. J. Binder, Jr.

After the election of officers the meeting was adjourned subject to the call of the chair.

Mark Twain once asked a neighbor if he might borrow a set of his books. The neighbor replied ungraciously that he was welcome to read them in his library, but he had a rule never to let his books leave his house. Some weeks later the same neighbor sent over to ask for the loan of Mark Twain's lawn-mower.

"Certainly," said Mark, "but since I make it a rule never to let it leave my lawn you will be obliged to use it there."—Ladies' Home Journal.

N. Y. COLLEGE PHARMACY BASE BALL AND ATHLETIC ASSOCIATION.

The College of Pharmacy organized a baseball team and made a trip to Philadelphia on Tuesday, April 12th, to play the Philadelphia College of Pharmacy. Although the Philadelphia team was successful by the score of 7 to 3, still the New York boys were so hospitably treated that they came away with nothing but the friendliest of feelings and pleasant recollections of their trip. Dean Remington and Mr. Mulford were the hosts at a small banquet after the game at Kubler's Restaurant in Philadelphia, which was attended, besides the two teams, by Prof. Kraemer, Mr. Thos. F. Main, Secretary of the New York College and Mr. W. B. Simpson, Clerk, to whose efforts the organization of the New York team is due.

There was a mass meeting held in the college on Friday afternoon, April 15th, to discuss the advisability of playing the Philadelphia College a return game on South Field and of also organizing a permanent athletic association. We consider that these plans if properly carried out will mean a great deal to the young men studying pharmacy and will make their college term pass much pleasanter and will give many happy days to look back upon in future life.

At a subsequent meeting held on Friday, April 15th, a New York College of Pharmacy Athletic Association was formed, with the following officers:

Honorary and Advisory President, Dean Rusby.
President, L. Howard.
Vice-President, G. W. S. Humphreys.
Secretary, C. C. Becker.
Treasurer, W. B. Simpson.

This Association is to be a permanent one and the Junior Class is requested to be present at another meeting was held in the Lecture Hall on Tuesday, April 19th, at 5 P. M., when officers for the following year from the present junior class were elected to take office at the beginning of next term.

"Ah, sir, we do enjoy your sermons," remarked an old lady to a new curate. "They are so instructive. We never knew what sin was until you came to the parish."—The Sacred Heart Review.

PETROLEUM.

By Walter Regnault, C. U. C. P., 1910.

A Short Account of Its History, Products and Uses.

Petroleum has been known practically from the earliest times. It was first mentioned by Herodotus about 300 B. C. and later by Pliny. In fact the word itself is derived from two Latin words, namely, petra—the rock and oleum—oil, thus indicating that this oil was obtained from cavities in rocks. Petroleum was also known to the Chinese, to the Persians and to the Arabians, but these people did not make much use of it. In 1814 a company was formed to bore brine wells in Washington County, Ohio. To their dismay they found that their salt was contaminated with petroleum. The same misfortune befell another company in 1819 while boring for brine in Wayne County, Kentucky, and ten years later the same accident occurred in Cumberland County, Kentucky. Little did they think how soon these apparent misfortunes would be considered most lucky occurrences. A few years later, that is, between 1850 and 1860, plants were built throughout the United States for the production of the so-called coal oil. This was obtained by the destructive distillation of some bituminous scheel, the substances then being used being albertite, from Nova Scotia, grahamite from Australia and Breckenridge coal from Kentucky. This coal oil soon replaced sperm oil for illuminating purposes, as it was very much cheaper.

For some years previous to this, however, the Seneca Indians of New York had been selling a kind of oil as a liniment, which they obtained from a creek in western Pennsylvania, where the city of Titusville now stands. The oil floated on the water and was collected by spreading blankets over the water to absorb the oil and then expressing these. On the labels of these liniment bottles was the picture of a derrick.

These two facts soon led to great results, for it occurred to a party of Yankees that this oil might have properties similar to that of coal oil. They consequently took a sample of it to Professor B. Silliman, Jr., of Yale University, who analyzed the oil and found it to have almost the same composition as coal oil. Upon the strength of this report a company was organized in New Haven and a certain Colonel E. L. Drake was sent out to Oil Creek, Pennsylvania,

to obtain this oil. The idea now occurred to Drake that he might get the petroleum by boring for it, and it is said he only got this notion from the picture of the derrick on the liniment bottles. And so it happened that on the 26th of August, 1859, Drake bored his first oil well and by great good fortune was enabled to bring into commerce that wonderful commodity, American petroleum.

It is my special endeavor in this short paper to help you to more fully realize with what remarkable and far-reaching consequences this discovery was attended, by enumerating the more important products obtained from petroleum and some of the various uses to which they are put. In the first place, let us recall that although petroleum is found in nearly all parts of the world, the only important sources are California, Texas, Ohio, Pennsylvania and the Caucasus. The crude product which flows or is pumped from the well, is used for lubricating purposes either directly or after being filtered through animal charcoal. In the Caucasus, on the Euphrates River and also in our own Western States it has been successfully used as a fuel both for locomotives and steamships. Most of the oil, however, is purified by being mixed with 1% to 2% of sulphuric acid, and then after the sludge, as the acid plus the contaminations is called, has settled and has been drawn off, the remaining oil is washed with alkali and water. This purified oil next undergoes fractional distillation. The first products which distil over are gaseous hydrocarbons such as methane, ethane, ethylene, etc., which are allowed to escape. Then follows the crude naphtha, which yields naphtha, petroleum, benzine and gasolene on redistillation. The naphtha is largely used in the manufacture of oil-cloth, benzine in mixing paints and gasolene as a fuel for stoves, launches and automobiles. All three, but particularly the benzine, are employed as solvents for fats and oils and often even for alkaloids A very light naphtha, called cymogen, was formerly used in artificial ice machines, and a slightly heavier one, rhigolene, was employed as an anaesthetic. These have since been replaced, however, the former by ammonia and the latter by cocaine and ethyl-chloride. The next distillate from the petroleum consists of burning oils or kerosene of various grades. How extensively this is used for heating and illuminating purposes is well known to you. Moreover, by letting kerosene or petroleum itself trickle down through a tower filled with red-hot brick, it is split up or cracked into gaseous hydrocar-

bons. The latter are mixed with water gas and thus produce the carburetted water gas used in New York and most of our cities today. Pintsch gas, which is employed for lighting railroad trains, is made, consists entirely of these hydrocarbons obtained by cracking petroleum. After the kerosene they get heavy oils, which are rapidly coming into favor as lubricants, a residuum and some coke. The latter is made into the gas carbon used for electrodes and in arc lights. The residuum, however, especially interests the pharmacist, for from it are obtained both paraffin and petroleum. The various uses and abuses to which paraffin is put would be too numerous to mention. Suffice it to say that it finds its way into a number of ointments and cerates and is used for adulterating bees' wax. The petroleum residuum from which the paraffin has been removed by chilling is purified by means of animal charcoal and yields the various grades of petrolatum or vaseline ranging in color from (which) white to a yellowish-brown.

When we consider how numerous are the products obtained from petroleum and how bright its future is, we can no longer marvel at the large number of men who have made their fortunes just from this one industry. Chief among these, of course, looms up our present oil king, John D. Rockefeller, who is said to have been properly named, for he was the fellow who was destined to get his rocks from cavities which occur in rocks.

SCIENTIFIC WORK

I.—Study of the Action of Hydrochloric Acid on Linalool and Geraniol(1)

This is a question to the study of which numerous chemists of high standing have already turned their attention. We have had occasion recently to take it up again and, by adopting certain very interesting facts, notably the preparation of the hydrochloric ester derived from linalool and the demonstration of its identity with the derivative prepared from geraniol under the same conditions. Let us recall in a few words the previous publications on this subject:

1) *On linalool:*

Grosser, in 1881 (*Ber.*, 14, 2494) studied the action of hydrochloric acid on the dextro-linalool of oil of coriander; he observed the elimination of water and described a compound $C_{10}H_{17}Cl(D_{15}=0.9527)$.

(1) Investigation by MM. Justin Dupont and Louis Labaune, France.

Barbier (*Comptes Rend.*, 114, 674) has described a compound $C_{10}H_{18}Cl_2$ obtained by the prolonged action of hydrochloric acid on lævo-linalool (*b. p.* (39 mm.)=155°—157° C.; $D_{19.5°}$=1.0246). By the action of acetic acid in presence of sodium acetate he obtained from this compound: 1) the acetate of an alcohol which he believed to be identical with the alcohol obtained by the direct action of the same reagents on linalool; 2) the ether-oxide of geraniol; 3) a hydrocarbon $C_{10}H_{16}$, licarene, *b. p.* (760 mm.)=176° — 178° C.

Morin (*Comptes Rend.*, 92 999 and 94, 733), by the action of hydrochloric acid in aqueous solution exposed to sunlight during one month, obtained a *dihydrochloride* $C_{10}H_{18}Cl_2$ (D_{16}=1.069), optically inactive, and incapable of distillation without decomposition.

Bertram and Walbaum (*J. f. prakt. Chem.*, [2], 45, 597), by the action of hydrochloric acid on linalool, obtained, after several rectifications *in vacuo*, a compound $C_{10}H_{18}Cl_2$ (*b. p.* [11 mm.] 118°—125° C.); by the action of silver acetate on this compound they obtained, after saponification, an oil having an odour of geraniol and linalool.

Barbier (*Bull. Soc. chim.*, [3], 9, 915) described a compound $C_{10}H_{18}Cl_2$ (*b. p.* [17 mm.], 133°—135° C.; D_0=1.0445), optically inactive, derived from the dextrolinalool of oil of coriander. When treated with acetic acid and sodium acetate, this compound yields a hydrocarbon $C_{10}H_{16}$, identical with inactive limonene.

2) *On geraniol:*

M. Jacobsen (*Ann. Chem.*, 157, 236) treated geraniol with gaseous hydrogen chloride, and then with a concentrated aqueous solution of the gas, in a sealed tube at 80°—90° C. for one hour. He obtained in this way a compound corresponding to the formula $C_{10}H_{17}Cl$, having a density of 1.02 at 20° C., and not distilling without decomposition. The action on this body of alcoholic potash, ammonia and water under pressure at 180°—200° C. yielded the etheroxide boiling at 187°—190° C. under 760 mm. pressure.

Barbier and Bouveault, by absorbing gaseous hydrogen chloride in geraniol, allowing the temperature to rise, obtained a compound $C_{10}H_{18}Cl_2$. By the action of acetic acid and fused sodium acetate, this dichloro derivative yielded:

1) A mixture of *tetratomic terpenes* (*b. p.* 170°—180° C.)

2) The acetate of *lemonol* which, on saponification, regenerates pure *lemonol* (*geraniol*).

They conclude from this that their chloro body is a mixture of cyclic and acyclic derivatives (*Bull. Soc. chim.*, [3], 15, 594).

Reychler (*Bull. Soc. chim.*, [3], 15, 364) is in agreement with Barbier (*Comptes Rend.*, 117, 120) in the view that it is impossible to derive a monochlorinated compound from geraniol. He endeavored to obtain it by heating the dichloro derivative with water. When he tried to fix exactly one molecule of hydrogen chloride on geraniol, he obtained a mixture of products containing oxygen.

Tiemann and Semmler (*Ber.*, 31, 832), by the action of alcoholic potash on the chloro derivative of Jacobsen, observed the formation, among other products, of inactive linalool, accompanied by geraniol.

The authors, whose work we have just briefly summarised, studied the direct action of hydrogen chloride on the alcohols, in the absence of a solvent. As a general rule they give no indication as to the temperature of the reaction. It is by taking these conditions into account that we have been able to obtain different results from theirs, as will be seen.

We have studied the action of hydrogen chloride gas on linalool and geraniol dissolved in their own weight of dry toluene, at various temperatures ranging from 0° to 100° C.

For these two alcohols, and for the same temperature, the external signs of the reaction are the same. If a current of gaseous hydrogen chloride be passed through a solution of linalool or geraniol in an equal weight of dry toluene, cooled below 0° C., no liberation of water is observed. It appears that there is either a solution pure and simple of the gas or else a fixation by addition at the ethylenic bonds. When a molecule of hydrogen chloride has thus been absorbed, and if the mixture be allowed to return to a temperature of 15°—17° C., a cloudiness is seen to form rapidly and water is precipitated. After standing for some hours, if the water which is eliminated be weighed and allowance made for the increased weight due to the hydrochloric acid dissolved in it, it will be found that this quantity of water is less than that which would correspond with the total replacement of an OH group by chlorine. The product of the reaction is therefore complex; it probably comprises, side by side with a certain proportion of hydrochloric ester, some addition products. We shall return to this point later.

If the operation be carried out at a temperature of 100° C., its course is quite different. The reaction is much sharper and yields a single product, or at any rate one containing only a little of the alcohol which may have escaped the reaction, and compounds formed by secondary reactions.

At this temperature the introduction of the hydrochloric acid gas into the toluene solution determines an immediate precipitation of water. When a molecule of the gas has been absorbed, it is found that the quantity of water eliminated, after deducting the weight of the hydrochloric acid dissolved, corresponds with the equation

$$C_{10}H_{17}OH+HCl=C_{10}H_{17}Cl+H_2O$$

On rectification of the product of the reaction, suitably neutralised and freed from toluene, bodies are obtained, with fixed boiling points *in vacuo*, with a yield of 80 per cent. in the case of geraniol and 60 per cent. in that of linalool, containing about 90 per cent. of hydrochloric ester, $C_{10}H_{17}Cl$. A more thorough rectification, enabling the pure esters to be obtained, decreases this yield, but it should be remarked that this rectificaton is particularly difficult, owing to the fact that these alcohols and their hydrochloric esters have boiling points very close together.

The estimation of chlorine in these hydrochloric esters is very simple. In fact, if they are placed in contact with an alcoholic solution of silver nitrate in the cold, there is an instantaneous precipitation of silver chloride. We have ascertained that the numbers thus obtained by this direct method coincide with those afforded by the usual methods for the estimation of chlorine in organic compounds. For instance, for one of these compounds, there were found.

By the lime method. . . . . Cl=20.49 per cent.
" " direct " . . . . . Cl=20.52 " "

This method, moreover, had already been employed by REYCHLER.

As will be seen later, we have utilised this double decomposition for passing from the hydrochloric ester to the corresponding alcohol by excluding, we believe, all chance of a molecular transpostion.

We shall now enter into the details of our experiments beginning with the results obtained at 100° C. which are the sharpest and most interesting.

1.—*Action of gaseous hydrogen chloride on linalool on heating.*

The linalool employed was the lævo-linalool extracted from the Cayenne oil of female rose-wood. Its constants were as follows:

B. P. (6 mm.) . . . . 83°-85° C.
D_{20} 0.8627
$[a]_D^{20}$ . . . . . —15.49°
n_D^{20} 1.4643

300 grams of linalool were dissolved in an equal weight of toluene. The solution, heated on a water-bath, is caused to absorb 75 grams of hydrogen chloride, or an excess of 4 grams over the theoretical quantity, corresponding to the quantity dissolved in the water formed in the reaction. This quantity of water was 37 grams, containing 3.6 grams of hydrochloric acid. In reality, then 33.4 grams of water were precipitated, the theoretical quantity being 35 grams. Thus almost the theoretical quantity was obtained.

Rectification yielded the following fractions, under a pressure of 6 mm.

1.	76.5 grams	at	70°-93° C.
2.	24.7 "	"	93°-95°
3.	170.5 "	"	95°-96°
4.	24.3 "	"	Residue

In the head fractions, a small quantity of a hydrocarbon $C_{10}H_{16}$ is found, which is probably the *anhydrolinalool* or *anhydrogeraniol* of SEMMLER. As a matter of fact, at the time of the first distillation there is a slight decomposition with splitting off of hydrochloric acid.

By a fresh rectification, there were obtained 124 grams of a product boiling at 95°-96° C. under 6 mm. pressure, which gave on analysis the following figures:

	Calculated for $C_{10}H_{17}Cl$	Found
Chlorine, per cent.	20.65	20.52

Its constants were as follows:

B. P. (6 mm.)	95 – 96° C.
D_{20}	0.9341
$[a]^{20}$	+10.50
n_D^{20}	1.4813

Molecular refraction . . . . . .

calculated. . . 52.28

found 52.5

This molecular refraction is a first proof of the linear structure of this compound.

We have at the present time under investigation the action of hydrogen chloride on the dextro-linalool of oil of coriander, under the same conditions.

To be continued.

MAILING LISTS.

There is one thing that is just as essential to the up to date druggist as cleanliness, and that is a mailing list. A list that includes all his customers and possible patrons every druggist should have in printed form to send out to the large advertisers who are constantly calling for them. A thousand names can be set up and a thousand copies printed by the local printer at a merely nominal cost, and when in this form erasures can be made or new names added in a moment. While the manufacturers are paying to advertise one article they are advertising your entire stock, and this being the case the chances are that you will get ten times as much out of it as the manufacturer. Chas. H. Fletcher, manufacturer of Castoria, has an advertisement in this issue calling for lists for Chubby's Magic Book. We earnestly advise all to send a list in at once.

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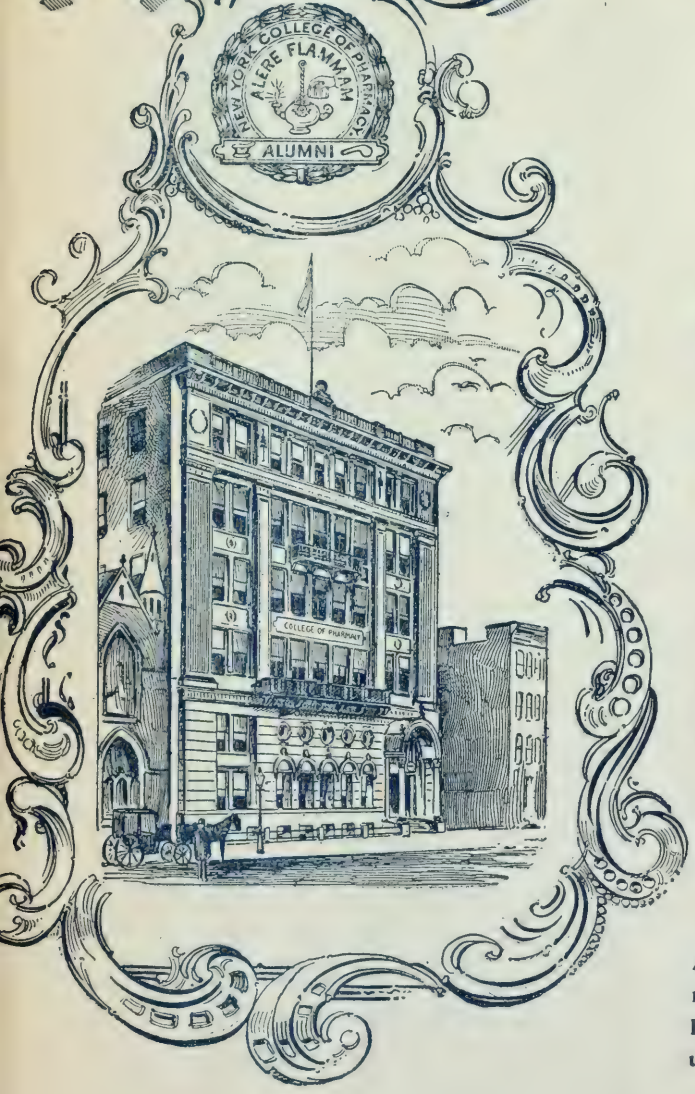

Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eightieth Annual Course of Instruction of this College began on the 27th day of September, 1909.

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For information, address,

THOS. F. MAIN, Secretary,
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... The ...

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COLUMBIA UNIVERSITY

EIGHTIETH ANNUAL COMMENCEMENT

OF THE

COLLEGE OF PHARMACY

OF THE CITY OF NEW YORK

Held at Carnegie Hall, Thursday Evening, May 12th, 1910

At 8 o'clock

PROGRAM

Overture, "Phedre".....Massenet

Selection, "The Dollar Princess".....Fall

ENTRANCE OF THE OFFICERS, TRUSTEES AND FACULTY OF THE COLLEGE.

March, "Spirit of Peace".....Goldman

PRAYER.

Rev. Dr. Floyd S. Leach.

Let us Pray:

Almighty God, Author of all wisdom, the Source of all truth, who has promised to reveal Thyself unto all men and show to them the wonders of Thy creation, we implore Thy blessing upon this College, instituted for the advancement of learning and for the search of the truth; visit this College, its professors and students with Thy love and favor, enlighten their minds more and more with the light of the everlasting gospel, graft in their hearts the love of the truth, increase in them true religion, nourish them with all goodness and in Thy great goodness keep them ever. Especially we pray that blessing upon this class here assembled that its members may go out and come in in Thy strength and that the revelation of Nature's laws which they have received in their College courses may be used for the advancement of science, the uplifting of mankind and the further revelation of Thyself to a world looking for the law of God, and making the learning of the past years be but the foundation of greater knowledge, and may it be so tempered with sympathy and love for mankind that it will show to the world that it has its source and fullfilment in the God of Love. Grant that blessing upon the College where this knowledge is imparted and grant that this class may individually and collectively honor their Alma Mater.

Fulfill now, oh, Lord, the desires and petitions of Thy servants as may be most expedient for them, granting us in this world knowledge of Thy truth and in the world to come life everlasting. Amen.

March, "National Emblem".....Bailey

ADDRESS.

Vice-Pres. Charles F. Chandler, Ph. D,

Members of the College, of the Board of Directors, the Faculty, and Class of 1910, Ladies and Gentlemen:

It is my pleasant duty to be with you here to-night on the occasion of the Eighteith Annual Commencement of the New York College of Pharmacy of Columbia University.

Many years ago a few retail apothecaries in this city, who seemed to realize the utter lack of any facilities for the improvement of the young men in their employ, conceived the idea of establishing in this city a College of Pharmacy. This movement took place in 1829, and on March 18th of that year, a constitution was adopted and there were seventy-two signatures of apothecaries of New York who took part in this movement for higher education in their profession. In 1831 a charter was obtained from the Legislature of the State of New York, and, as I look down the list of distinguished men who have taken an interest in this College, it is evident that from the outset its importance was thoroughly appreciated. In 1829 there were two instructors, great men in their days, but only two—Dr. John Torrey, the distinguished chemist and botanist, and Professor Stephen Brown, famous in Materia Medica and Toxicology.

The College has grown; to-day we have thirteen professors and five instructors, or a faculty including eighteen teachers. When the College was first organized it had no place in which to meet, and the Mayor of the City, appreciating the importance of this new educational enterprise, permitted the lectures to be held in the City Hall. Later, a single room was hired at the University Building on Washington Square, but the College prospered, has always prospered, and by and by was able to secure a building in East 23rd Street. It was really an abandoned church, the congregation having moved uptown and a little alteration adapted it to the purposes of the College and by and by the College waxed so strong that it actually borrowed $125,000, a pretty good evidence of strength, and built a beautiful edifice in West 68th Street.

It is customary at this time to say a few words with regard to the present condition of the College. During the past year the attendance has been excellent. We have had 125 seniors and 140 juniors, 2 students in the course of Food and Drug Chemistry, 7 post-graduate students, 15 special students, making in all 309 students in attendance, and I am happy to say that, among these, eight young ladies have graced the corridors and lecture halls of our beautiful building. The College, I may say, was never in a more satisfactory condition. The most recent advance made was most flattering to it. After struggling along for seventy-five years

with no external assistance we were delighted five years ago to receive an invitation from the President of Columbia University to come into that University and become a part of it, to be placed alongside of the law student and the medical student and the Schools of Applied Science. You can imagine how satisfactory it was to those who have labored so long and so faithfully to build up this College to have their efforts recognized and to have the largest University in the United States consider them worthy to become one of their regular professional departments. It was not only a compliment to the New York College of Pharmacy, but it was a great compliment to the whole pharmaceutical profession to be recognized by this great University as one of the learned professions. This act on the part of Columbia University is not without its precedents; I may say that in Germany, pharmacy has always been recognized as a profession. I think that in every large German University there is a College of Pharmacy, an integral part of the University, on the same footing and in the same rank as all the other departments.

This union with Columbia is of the greatest advantage to us. It creates mutual interests, mutual co-operation and a higher standard for the College of Pharmacy; it opens the College of Physicians and Surgeons to our students and it opens the College of Pharmacy to the College of Physicians and Surgeons. It brings distinguished instructors from the College of Physicians and Surgeons to meet our students from the College of Pharmacy, and furthermore, when our students who pursue the prescribed course receive their degrees from Columbia University, they become graduates of Columbia. We have a University course for the degree of Pharmaceutical Chemistry, the preliminary requirement of which is a full academic education, including, of course, four years in graduating from the High School. It means two full professional years in the College of Pharmacy and an additional term of study for a longer period. We hope ultimately that all our students will be able to devote the necessary time to qualify for this degree.

Looking back over the years that this College has been in existence, we find that nearly 3,000 well educated and well trained pharmacists have been graduated from its halls, and have become most useful professional members of our community. The present

condition of the College is most satisfactory. A devoted Board of Trustees manages its business in a most judicial manner, judicious as well as judicial. We have a very comprehensive and distinguished faculty, and I think there is no other institution in this country that surpasses the College of the City of New York in the thoroughness and comprehensiveness of its instructions. We have a beautiful building, very complete equipment, most commodious lecture rooms, and a fine library, but one of the most important and encouraging features of our experience is the confidence and sympathy which is manifested in the College by the entire pharmaceutical profession. I might say a word with regard to the honorable profession of the pharmacist and the honorable position which he holds in the community. There have always been pharmacists; the pharmacists were among the earliest students of nature. They studied the mineral kingdom, the vegetable kingdom and the animal kingdom; they sought everywhere for new remedies; they even thought at one time that they might actually accomplish what a great many advertisements say has been accomplished, that they might discover a universal remedy which would eliminate all kinds of disease. That desirable result has not yet been accomplished, but by their study of nature, their investigations into everything in the three kingdoms of nature, they have succeeded in bringing to the aid of man the most wonderful agents for controlling the operations of life and eliminating disease. The pharmacist is an educated professional man who applies science and experience for the benefit of the community in which he lives. His pharmacy is a place of refuge for all who meet with accident or sudden sickness in our streets. No one can fail to realize the importance of the work of this College, what it is doing to fit the rising generation of pharmacists for their indispensable life work, and think how much benefit it is to the pharmacist to get such an education as this College gives. It qualifies him for his life-work; it gives him the self-respect which comes with the knowledge of proficiency; it makes a professional man of him; it admits him to a guild, a fraternity; it makes him a man of science, and science involves accuracy.

A famous French chemist recently said, in speaking of the scientific French method of pharmaceutical training, it is at present and in fact has always been, the main, if not the only source of the

moral and material progress of human society, and think of the benefit to the country of sending out every year a hundred trained pharmacists, think what a benefit it is to the physician that he can rely upon the pharmacist to whom he sends his prescription with certainty that it will be properly filled out and that his patient will get the benefit of exactly that combination of materials which he thinks will bring back health. Think what a benefit it is to the patient! Why, our lives are in the hands of the pharmacist and the physician. Both must be thoroughly educated and qualified for their work; otherwise we risk our lives every time we send for the physician or send his prescription to the pharmacist, and I think it is a great example to the community that these men, these pharmacists who undertake this important service to society, should be willing to spend years of hard study in order to prepare themselves to perform their duties in a thorough and accurate manner.

We cannot help congratulating ourselves on the progress which the College has already made, but we have great ambition; we desire to have it progress far more in the next few years than it has in all the years that are past. It is our hope and ambition to obtain for our College the foremost position in the world in the field which it occupies and to make it the center of all that relates to the science and art of pharmacy.

Before I finish my few remarks I must say, however, that we need help, we always need help, every college in the country, every university in the country needs help; the number of students is increasing everywhere and unless the resources of our institutions of education are constantly increased in proportion, they fall behind in their means for accomplishing their results. This College needs help, and I might say here that it is a perfectly patent fact to all who know the College, that it has never received the slightest support from the city or the state,—never; no appropriation has ever been made it, never has any wealthy citizen bestowed upon this College any material sum of money. This College has grown up and been developed entirely from within the profession. It has been supported entirely by contributions from the pharmaceutical profession, the retail and wholesale apothecaries of this city have created and maintained this College. I think it is a reflection upon the community. Millions of dollars are sent from this city in every direction in the United States to support other educational institu-

tions and almost every college in the country derives a considerable portion of its income from money which has been contributed from New York City, and yet it never seems to have occurred to anyone who had the means that we have one of the most important institutions in the whole United States right here in the City of New York which needs money and ought to have it. When we moved to 68th Street into our new building, we had a mortgage of $125,000 and a floating debt of $20,000, and owing to the good management of the College by the Board of Trustees and the assistance which it has received from members of the pharmaceutical profession, it has reduced its mortgage to $90,000 and entirely eliminated the floating debt. That means that $35,000—I think I am correct in my statement—of its debt has been met, and that by judicious and frugal management. Now I think it is high time that somebody of all the millions in this community who are benefited by the pharmacists whose lives depend upon them should do something, something to enable this College to do more, have greater facilities, more instruction, more material, more laboratories. It will result to the benefit of the community.

In closing, I wish to say that one of the pleasantest episodes in my life has been my association with this College. I came to it in 1866 and I have been here ever since, and there is no piece of work in which I have been engaged or taken part in, that has given me more satisfaction than my part in assisting in building up this College of Pharmacy.

Selection, "Die Fledermaus".....Strauss.

CANDIDATES FOR DEGREE OF GRADUATE IN PHARMACY.

Secretary Thomas F. Main, Ph. G.

Dr. Chandler: On behalf of the College and Trustees of the College it gives me great pleasure to have called off the names of these candidates as having conformed with all the requirements of the College and as having passed a satisfactory examination, and they are therefore entitled to have the degree of graduate in Pharmacy conferred upon them.

To be continued.

ALUMNI DAY JUNIOR EXERCISES.

The Alumni Day Junior Exercises were held as usual in the Lecture Hall of the College, on Wednesday evening, May 11th, 1910. The hall and stage were artistically decorated and about 600 people (Juniors and their relatives and friends) were present.

Mr. Ewen McIntyre, Sr., made an address on behalf of the Alumni Association, and was very generously applauded as he usually is whenever he appears before any college gathering.

The roll of successful Juniors was read by Mr. Geo. Hohmann; The roll of honor was read by Dr. C. P. Wimmer; and is as follows:

	Points	Per Cent.
1. Kreppel, H. G.	1,072	89.33%
2. Dunn, C. W.	1,042	86.83%
3. Brannigan, F. J.	1,040	86.66%
4. Arginteanu, M.	1,037	86.42%
5. Brooker, E. D.	1,031	85.92%
6. Fried, L. H.	1,023	85.25%
7. Neiman, S.	1,020	85. %
8. Greenbaum, S.	1,007	83.92%
9. Marquez, Q. B.	1,006	83.83%
10. Breinin, L.	1,003	83.58%
11. Muller, S. I.	1,001	83.42%
12. Wilkinson, S.	1,001	83.42%
13. Monell, L. M.	994	82.83%

The Junior prizes were awarded by the President of the Alumni Association, Mr. H. A. Herold, to the following:

First prize, consisting of a Torsion Balance, to Mr. H. G. Kreppel, for the highest general average. Mr. Kreppel's name was etched on the front glass plate of the scale, together with an inscription which showed what the prize was awarded for, and which would show in later years that Mr. Kreppel was at the head of his class during his Junior year.

The second prize consisted of a National Dispensatory, likewise with a gold lettered inscription, similar in expression to that on the Torsion Balance, and was awarded to Mr. Charles W. Dunn, for the second highest general average.

The Third Prize, consisting of a Culbreths Materia Medica, suitably inscribed as the previous prize, was awarded to Mr. F. D. Brannigan for the third highest general average.

Of course the friends of the various prize winners applauded loudly as each one received his prize, and it took some time for the applause to subside.

Then came the professional talent which afforded much amusement. Two Juniors, Messrs. Loughlin and Cheney gave an imitation of a German Band; and Mr. W. A. Brown, a senior, disguised as a woman sang some very amusing songs, which made a decided hit, and showed that there is plenty of latent talent among our own boys.

At the conclusion, dancing was indulged in in the Pharmacognosy room until 2 a. m.

The committee in charge were Dr. Frederick A. Leslie, Chairman.

Dr. Geo. C. Diekman, Dr. C. P. Wimmer,
Mr. Geo. Hohmann, Mr. E. A. Boeltcher.

PRESENTATION OF SILVER LOVING CUP TO PROF. CHANDLER,

By the Graduating Class (1910).

At four o'clock in the afternoon of Wednesday April 27th 1910, Professor Chandler entered the lecture hall of the College of Pharmacy as usual. Upon his entrance the students applauded him most vigorously. He merely bowed and then proceeded to look over his notes to see what he was going to lecture on. He noticed on the desk a small bouquet of For-Get-Me-Nots put there by the girl students. He put the bouquet in the buttonhole of the lapel of his coat and thanked the girls most heartily for it, as well as the love letter which accompanied it.

He then proceeded to lecture and about five minutes later the faculty and trustees entered the lecture hall one behind the other in regular file. They seated themselves in the back of the hall.

At five o'clock he stopped lecturing, and told the students how much he appreciated their close attention to his lectures throughout the term, and closed by wishing them luck at the examinations.

At this moment Mr. Schwartz, the president of the class, approached the venerable professor, but had to wait for several minutes to allow the applause to subside. In a well prepared speech he presented a beautiful silver loving cup to the professor, with the best wishes of the class of 1910. When Mr. Schwartz had concluded there were tears in the eyes of Professor Chandler, and Mr. Schwartz resumed his seat amid the din and applause of the entire assemblage.

When the applause had subsided the professor stood before the class much overcome, he knew not what to say or do and seemed to be unable to speak. He bowed, walked over to the faucet with the cup in his hand and filled it with water and said "I drink to the health of you all." The class again applauded most vigorously.

After the applause had subsided he thanked the class heartily, after which the boys tried to obtain his autograph. Whereupon Professor Chandler asked the president of the class to obtain the signatures of the students for him. This was done and a booklet containing their signatures was presented to him on commencement night.

COLUMBIA STUDENTS ALSO GIVE CUP TO PROFESSOR CHANDLER.

Five hundred Columbia students gathered in the large chemistry lecture room, in Havemeyer Hall, on May 4th, to hear Professor Chandler's last lecture on chemistry as a member of the university faculty. Many members of the faculty were present, most of whom had studied under Professor Chandler.

His appearance was the signal for an outburst of enthusiastic cheering, such as is seldom tendered to any member of the faculty, and even after the Columbia cheer had been given, with three Chandlers on the end, it was a long time before there was quiet. The students continued to clamor for a "Chandler story."

Professor Chandler, however, at once began to lecture on arsenic and antimony. But he could not let an opportunity for a jest to pass. After showing a black lump of sulphide of antimony one of the first things he said was that it was rather a long jump from that to a glass of whiskey, but that as the Turkish women had used that same substance to brighten their eyes, it was closely related to the whiskey of to-day, for that, too, he understood, was used as an "eye opener."

On the platform with the Professor was Mr. E. P. North, class of '57, Union, who was a member of Professor Chandler's first class, and when he was introduced as "exhibit A" it was the occasion of another outburst.

In conclusion Professor Chandler advised the men when they got out of college not to wait for something big to come along but to take anything that looked good and work themselves up.

The junior class then presented to him a silver cup and he drank a health to them in H_2O.

THE NEW YORK COLLEGE OF PHARMACY AT THE PHARMACOPOEIAL CONVENTION.

The New York College of Pharmacy played an important part in the ninth decennial convention for the revision of the United States Pharmacopoeia, which was held at the Hotel Willard in Washington, on May 10th, 11th and 12th.

The officers elected included Dr. Wm. J. Schieffelin, Vice-President of the College of Pharmacy, who was chosen as one of the five members of the Board of Trustees This body has the entire care of the finances of the Pharmacopoeia

The Committee of Revision embraces five New York College men, as follows:

Prof. H. H. Rusby, Prof. Virgil Coblentz, Prof. Geo. C. Diekman, '88, Wm. C. Alpers, Albert Plaut and Otto Raubenheimer, '88.

In addition to these the following members or graduates of the New York College were delegates. Graduates are indicated by year of graduation:—

Charles Holzhauer, -	'73	W A. Bastedo, - -	'94
Thomas F. Main, -	'71	Jos. Weinstein, - -	'06
George F. Payne, -	'76	C. F. Schleussner, -	'73
Caswell A. Mayo, -		Katherine C. Mahegin,	'89
C. O. Bigelow, - -		H. W. Schimpf, - -	'87
W. O. Gross, - - -	'86	F. P. Tuthill, - -	'88
Abraham L. Metz, -	'87	Adrian Paradis, - -	'76
Philip Asher, - - -	'87	C. O. Douden, - -	'84
F. J. Wulling, - -	'87	C. S. Heimerzheim, -	'93
Wm. Mansfield, - -	'05		

THE NEW YORK COLLEGE OF PHARMACY AT THE RICHMOND A.Ph.A. MEETING.

The Richmond meeting of the A.Ph.A. was very largely attended this year, and many distinguished people were there to take part in the various proceedings. Among the New York College of Pharmacy graduates the following were discovered, and goes to show that our boys are taking an active part in whatever pertains to their chosen vocation.

J. A. Dunn, - - -	'67	D. V. Zoeller, - -	'77
C. Holzhauer, - -	'71	H. W. Schimpf, - -	'87
T. F. Main, - - -	'73	P. Ascher, - - -	'87
A. Henning, - - -	'76	O. Raubenheimer, -	'88
G. F. Payne, - - -	'76	F. N. Pond, - - -	'94
W. A. Frost, - - -	'77		

The full particulars of this meeting have already been published in various pharmaceutical journals and owing to lack of space we will omit further details until a later issue.

OBITUARY

Charles O. Grube, Class of 1894, died May 13th, 1910, at Loweree, N. Y. As we have been unable to obtain particulars at the present writing, we will publish details in the next issue.

Peace to his ashes.

"Pshaw!" exclaimed Miss Yerner, impatiently, "I'm sure we'll miss the opening number. We've waited a good many minutes for that mother of mine."

"Hours, I should say," Mr. Sloman retorted rather crossly.

"Ours? O George!" she cried, and laid her blushing cheek upon his shirt front.—Catholic Standard.

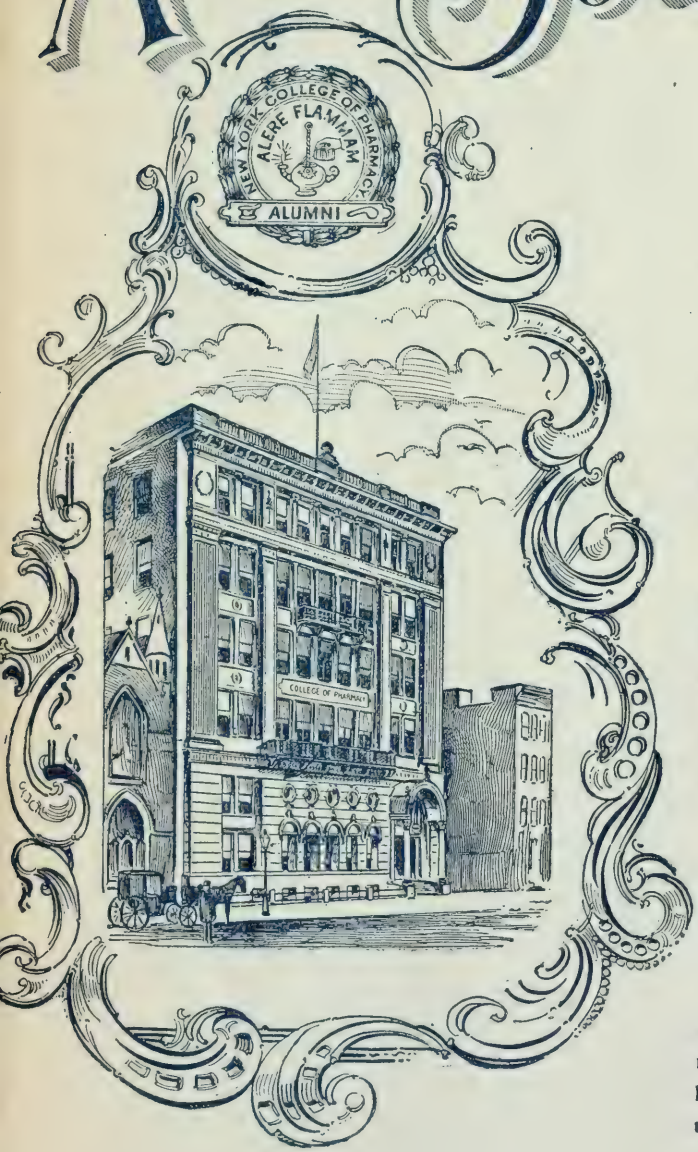
'Bus Driver: "Ain't yer satisfied with runnin' over people? Yer wants to run over the 'osses now!"

Taxi Driver (indignantly): "I haven't run over anybody for a long time."

'Bus Driver: "What! Are yer gettin' nervous?"—London Opinion.

VOL. XVII. JULY, 1910. No. 7.

The Alumni Journal



Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eightieth Annual Course of Instruction of this College began on the 27th day of September, 1909.

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For information, address,

THOS. F. MAIN, Secretary,
115-119 West 68th St., New York City.

... The ...

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L. B. SIMPSON, EDITOR COLLEGE NOTES

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COLUMBIA UNIVERSITY

EIGHTIETH ANNUAL COMMENCEMENT

OF THE

COLLEGE OF PHARMACY

OF THE CITY OF NEW YORK

Held at Carnegie Hall, Thursday Evening, May 12th, 1910

At 8 o'clock

(*Continued from June Edition*)

CONFERRING DEGREE OF GRADUATE IN PHARMACY.

Vice-President Charles F. Chandler, Ph. G.

Dr. Chandler: Now, my friends, I think it no more than fair that I should tell you that we are going to confer upon this large class the degree of graduate in Pharmacy. There is more in that than might be imagined. There is a great deal more. They have prepared themselves to come to this College. They studied those things which seemed necessary to enable them to profit by

the instruction to be given here. They have labored most diligently over two entire years to earn this degree, and I think it no more than fair to give you some idea of what they have had to study. They received a very comprehensive course in Physics, another in Chemistry, general and Pharmaceutical, another course in Chemistry analytical, another in the mathematics of Chemistry, another in practical Pharmacy, and another in the dispensing of medicines —not only lectural instruction and recitations but laboratory work wherever such work was suitable for the subject, that comprehended or was comprehended in the first year—the general year. After the vacation they came back, and during the past year they have received instructions in Chemistry organic, Chemistry pharmaceutical, Chemistry analytical, dispensing pharmacy, Materia Medica, and more or less Physiology. They have pursued that entire series of subjects over two years; the work which they have been called upon to perform they have performed in the most satisfactory manner. Their attention, their industry and their scholarship has been entirely satisfactory to the Faculty. It has been my pleasure during the past year to be one of their instructors, and in all my experience with students of all kinds in the medical college and the academic college, in the engineering college—I never in my whole experience have had a more attentive, more interesting or a more satisfactory class than I have had here in 1910, and I have constantly held them up as an example to my students in 116th Street as examples of men who come to College for a purpose, to get an education and intend to get it, and require no stimulation on the part of the instructor. I cannot say enough to express my satisfaction with this class. I do not mean to say that I have not had a similar experience with other classes. I speak of the senior class of the College of Pharmacy year after year as I have lectured to it; they have given me the same satisfaction. I know of no students in any branch of higher education who are more devoted to their work and take a greater advantage out of their opportunities than do these young men. The examinations are very strict and severe, and it is surprising the number who succeeded in passing them. Out of 116 students 105 succeeded in satisfying every instructor, and there were only 11 who failed to obtain their degree. Fortunately, I think most of them have so few deficiencies that in the autumn we may be able to give them their diplomas also.

Besides the 105 who have succeeded in passing all the examinations and accomplishing all the work required, there were 15 who received their degrees last autumn, and there were 5 Doctors of Pharmacy and 18 pharmaceutical chemists who received their degrees from the President of Columbia University at the University commencement. There will be some to receive their degrees there this year.

Before I can confer your degrees upon you, young ladies and gentlemen, I wish, in the first place, to congratulate you on the successful completion of what you have undertaken to accomplish in this College, but I want you to realize that your education is not completed. You have acquired a certain amount of knowledge, but there is something more important that I hope you have all acquired. You have learned how to learn, you have learned how to acquire, and that is something which you must continue to acquire as long as you live. I hope that you have made yourselves sufficiently familiar with the literature of your profession; that you will have it constantly with you so that you may keep pace with the advances in the science and art of pharmacy. A great many things are necessary in this life for success—knowledge is one of them, but there are many others, honesty, integrity—but the great thing—as important as any—is to learn to distinguish the essential from the unessential. A great many men start out in life apparently equipped with everything necessary for success; they are honest, they are upright, they are honorable, they are industrious, yet they are often complete failures because they employ their efforts over work at subjects that are not worth working at, that it is not possible to accomplish anything at; judge, think of this before you act, so that when you work, you work for a purpose. Some people call want of success bad luck; they say they never had an opportunity, but the difficulty is they did not recognize their opportunities or they failed to make use of them; the opportunity went by, and it is said that it does not often come back; you must recognize it.

There is another thing, and that is: When an opportunity is presented to them to do something, the first question they ask is, "What is there in it for me?" That is the greatest mistake a man can make in life. If anything presents itself to any one of you to do, the question to ask is: Is it worth doing? Is it worth doing? And if it is worth doing, do it. Take what comes to you for doing

it well, but never, never refuse an opportunity because you do not see immediate reward.

I would say from my own experience that almost everything of any value that has ever come to me has had very little profit in it. Like my invitation to come to this College in 1866. I was invited to take a hand in the education of the young pharmacists in this College. I inquired what it was for and was told by Professor Bedford that it was desired to educate pharmacists and to supply the community with men who could be trusted with drugs, and I asked him what establishment they had, and was informed that they had one room in the University, for 33 students. He said he would allow me something for expenses and said, would I take it? I said, yes, I would, and I may add that I have been glad ever since. Now, I hope, young men, you know me pretty well now—we have been together for a great many years—I hope you will bear that in mind. I think it is one of the most important things. Whenever you get a chance to do anything worth doing, do it, no matter whether you get paid for it or not. In your work give honest measure and good quality, no injurious article. Use common sense in your methods. Be good citizens, take an interest in public affairs, but don't become politicians; that means ruin for the profession, unless one is a lawyer, to become a politician.

Now there is one other little point: This is the last class to attend my lectures in the College of Pharmacy and I wish to express my particular affection for it. I wish to thank you again for the beautiful gift you sent me, and wish to thank you also for having taken the trouble of putting your autographs in this handsome book, that I may have your names always before me. I want to thank the young ladies also for the love-letter they sent me.

And now, in accordance with the power vested in me, by order of the College of Pharmacy of the City of New York, and by order of the Board of Trustees, I, Charles F. Chandler, Vice-President of said College, do hereby declare you to be graduates in Pharmacy of the College of Pharmacy of the City of New York.

In addition, I wish to say that we have a special course in Pharmacy, known as the Food and Drug course, the object of which is to instruct pharmacists in the analysis of foods and drugs, and when the student has completed this course he receives there-

for, a special certificate. I have at this time to announce that Mr. William B. Stacom and Nicholas Salinitro have completed this course and that they will receive their certificates from the Secretary.

Melodies from "The Chocolate Soldier".....Strauss

AWARDING THE ALUMNI PRIZES

H. A. Herold, Ph. G., President of the Alumni Association.

Ladies and Gentlemen:

I have the pleasure this evening of awarding the Alumni medals to the three highest men on the Honor Roll.

The Alumni Association was organized some years ago to create good fellowship among the graduates of the College and the students, to advance the interests of pharmacy and kindred subjects, and to foster all the interests of the College. In our general aim to help the students and to increase the interest in their work, we award them annually a gold, silver and bronze medal. It is my pleasure this evening to award the first prize—a gold medal—to Mr. Walter Regnault.

The second prize, a silver medal, to Mr. Samuel Baron.

The third prize, a bronze medal, to Mr. Herman Vogel.

Gentlemen: On behalf of the Alumni Association I congratulate you on your success. You are to be congratulated because, starting with the same opportunities as the rest of the members of your class, without handicap and with even chances with the rest, out of one hundred you have finished at the head.

There is one word I would like to add in addition to what Professor Chandler has stated to the graduates, and that is: Don't be tempted to pilfer the products of somebody else's creative genius, something that they have acquired by brains and capital. Don't poach on their preserves, but be creators and inventors yourselves; use the knowledge and the methods of thinking that you have acquired here in the past two years and you will be a credit to yourself and an honor to the University that has graduated you. I thank you.

Cornet Solo (Selected) .....Mr. S. Finkelstein

ROLL OF HONOR

Curt P. Wimmer, A. M., Phar. D.

Mr. President, Gentlemen of the Board of Trustees, and of the Faculty, Ladies and Gentlemen:

It becomes my pleasant duty, at this time, to introduce to you the honor men of this graduating class.

Their number, by virtue of custom, honored by time, has been fixed at thirteen, not to prove the old superstition connected with this number, an untruth, but to impress upon us more forcibly the fact, that the element of luck could not have possibly entered into the obtaining of a position on the Roll of Honor.

These graduates have passed examinations in eight theoretical subjects and have received marks in four laboratory subjects throughout the term, making twelve subjects in all.

Counting perfect work in each subject as equivalent to 100 points, it is evident that the highest number obtainable was 1,200 points.

Now, out of 1,200 points, the first man on the roll has obtained 1,130 points—Mr. Walter Regnault.

This corresponds to a percentage of 94.17.

Then follow:

2. Samuel Baron,	1,092	91.00%
3. Henry Vogel,	1,065	88.75%
4. Samual Glasseroff,	1,062	88.33%
5. Frederick Yaffa,	1,057	88.09%
6. Harold Cartwright,	1,052	87.66%
7. Earl W. Blake,	1,047	87.25%
8. Anton Robitsek,	1,043	86.91%
9. Leo Roon,	1,038	86.50%
10. Henry Weiss,	1,034	86.16%
11. Arthur E. Cole,	1,028	85.66%
12. Richard Elting,	1,018	84.83%
13. Samuel Tolmach,	1,017	84.75%

Permit me to say a few words about the individual members of this honor roll.

Mr. Walter Regnault, the first man on the list, the true type of a scholarly young gentleman, at his entrance into college won, in a competitive examination, the scholarship offered by the Man-

FACULTY AND GRADUATES OF THE COLLEGE OF PHARMACY OF COLUMBIA UNIVERSITY, 1910.

hattan Pharmaceutical Association. At the close of the Junior Year, he stood at the head of his class and, thereby, won the prize, offered by the Alumni Association, and now, at the end of his second year, he is again before us, a winner, excelling in his studies and setting a standard hard to reach.

Messrs. Baron, Vogel, Yaffa, Cartwright, Blake and Cole were also on the roll of honor last year, Mr. Blake taking the second prize. These gentlemen have retained their position as leaders.

Messrs. Glasseroff, Robitsek, Roon, Weiss, Elting and Tolmach are new men on the honor roll. They have shown that they are of the material which makes for success. My friends, your last step in College life has been a success, may a kind fate give that your steps in life, which now are to follow, may be as successful. You have gained to-night, deservedly, the admiration of friend and foe, you have strengthened the ties which bind you to your friends. Get into the habit of winning, and be not satisfied unless success is yours.

And now, in the name of the College of Pharmacy, its Board of Trustees, its faculty and officers, I congratulate you most sincerely.

Negro Sketch, "Frozen Bill".....Pryor

ADDRESS TO THE GRADUATES

William Dawson Johnston, M. A., Librarian, Columbia University.

Ladies and Gentlemen:

It gives me very great pleasure this evening to represent the University on such a notable occasion,—for so many the end of the College career and the beginning of a professional career. I have chosen to-night to say something to you about the reading of a professional man, partly because reading sems to me an important part of the culture of every individual and partly because it seems to me essential to the culture of a member of one of the professions. In the first place, I am often asked as to who may be considered members of a profession, and what is meant by professionalism. I can perhaps answer this question best by saying that professionalism represents the service of society. Commercialism is the service of the individual. The one represents an effort to satisfy the needs of men; the other an effort to satisfy their desires. This is also, it seems to me, a dis-

tinction between the professional man and the serving man. The former seeks to satisfy our real wants, the latter is content if he satisfies our imaginary wants. The former seeks to supply our needs, whether expressed by us or unexpressed. The latter needs no such liberality. The professional man is essentially a master; he works for the love of it; the servant works for hire. These are perhaps the general characteristics of the professional man. To be more specific, I may suggest that a professional man should be, first of all, a man of learning; second, a man careful of the tenets of the profession; third, a student of the needs of the community. It is an ancient belief that a professional man should be a learned man. In recent years, however, we have come to see that professionalism involves only such learning as is essential to skill. A professional man is better described, therefore, as a man interested in learning rather than as a learned man. The interest is the main thing. It is this which renders the man alert and receptive. It is this which makes all intellectual progress possible. The most prominent agency used in stimulating interest are conversation and reading. It has been your privilege as students to profit by the somewhat formal conversation of the lecture room; henceforth, however, your opportunities for learning in this manner will be limited. You will be dependent largely upon the information which you may pick up in the course of the day's work, in conversation with your associates. I would not care to question the practical utility of the knowledge which may be thus acquired, or its general value, but I must point out that for well-matured opinions upon professional subjects you will not be able to depend always upon your immediate associations; for the most expert advice, for the most exact information, you will often need to resort to books. In the College you have been dependent upon your instructors; in your post-graduate work, even in the laboratory and in the shop, your chief dependent perhaps would be upon books; they will be your principal sources of information and advice.

If we will examine this matter carefully we will be able to see that books will help us in two ways. I have already said that a professional man is first of all a man of learning, and after that he is, on the one hand, a man careful of the standards of his profession, and, on the other hand, a student of the needs of the community. In both of these directions it seems to me books are essen-

tial to the professional man. The Lloyd Library in Cincinnati, the largest pharmaceutical library in the world, contains over 23,000 volumes. This great collection is larger than most medical collections; indeed, it is larger than the average town library. If arranged side by side these books would extend nearly a mile, that is, in a row from this hall to the Grand Central Station. I refer to this because it shows what may be done by the profession as a body, for the preservation of the literature of the profession. The individual member of the profession, however, is concerned only with the standard works of his profession. These represent the accumulated experience of the profession and are an important part of its equipment. This is obviously true of the Pharmacopoeia; it is hardly less true of other works. The professional man who is a man of one book is not a desirable member of a profession; the pharmacist who does not use more than the Pharmacopoeia is neither a desirable member of the profession nor a desirable citizen. A member of a profession must also keep in touch with its progress as described in professional journals, in fact it is difficult to say which is the more important, an acquaintance with standard books or an acquaintance with current information.

To be continued.

COLUMBIA UNIVERSITY COMMENCEMENT.

The one hundred and fifty-sixth annual commencement exercises of Columbia University in the city of New York were held in the gymnasium of the university, 116th street and Amsterdam Avenue, on Wednesday, June 1. Prof. H. H. Rusby, as dean of the College of Pharmacy, presented the candidates to President Butler, who conferred the degrees on them The degree of pharmaceutical chemist was bestowed on Szücs Béla, Ph. G.; Arthur E. Cole, Ph. G.; Harry B. Hansen, Ph. G.; Alvin E. Kuhlmann, Ph. G.; Walter Regnault, Ph. G.; Leo Roon, Ph. G.; Mosé di Davide Scuccimarra, Ph. G., and Armin A. Von St. George, Ph. G.

The degree of Doctor of Pharmacy was conferred on José Janer, M. Sc.; Charles Albert McBride, Ph. C.; John Scavo, Ph. C., and John Alfred Steffens, Ph. C.

The candidates were seated in the center of the hall with the candidates for degrees from other schools, of whom there were more

than a thousand. When presented by the dean the candidates arose and stood in their places, there being no individual presentation of diplomas. The only exception to this was in the case of the Doctors of Philosophy, who marched to the dais in a body led by Carl G. Amend, a son of Otto Amend, of Eimer & Amend, who graduated from the School of Mines as a Bachelor in 1908 and took the degree of Master of Arts in 1909.

Among the candidates who received the degree of Master of Arts was George D. Beal, of Scio, Ohio, a son of Prof. S. H. Beal, former president of the American Pharmaceutical Association, and Curt P. Wimmer, assistant in chemistry at the college of Pharmacy

Among the graduates of Barnard College receiving the degree of Bachelor of Arts was Miss Elsie Plaut, daughter of Joseph Plaut, treasurer of Lehn & Fink.

NEW YORK BRANCH OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

The May meeting of the New York Branch of the American Pharmaceutical Association was held at the College of Pharmacy on Monday evening, May 23, with President Otto Raubenheimer in the chair. The most interesting feature of the meeting was a discussion of the doses in the Pharmacopœia. Dr. R. A. Hatcher said that the question of what was a poisonous dose could never be determined accurately, as this depended on a variety of conditions. He suggested that if the pharmacists desired to have something in the way of cautionary notices inscribed on the prescription calling for what he termed "heroic doses," this might well be accomplished by having the dose underscored, but he cautioned the members against the use of an exclamation point after the quantity, as this might readily be taken to mean an i

Brief reports were made verbally of the Richmond meeting and of the Washington convention. Resolutions were adopted requesting the council of the association to provide for the members a printed statement of the fraudulent character of the so called "prescription" proprietaries.

J. L. Lascoff read a paper on the Practical Side of Pharmacy and Hiland Flowers read on The Enamel Ware for Cooking Utensils.

THE BREITENBACH PRIZE.

The Breitenbach prize of two hundred dollars in gold awarded by M. J. Breitenbach for the best general average in examinations was won by Walter Regnault, who also took the Kappi Psi gold medal. The faculty graduate prize was won by John A. Steffens, Ph. C.

The Barnard medal awarded every five years for meritorious service to science on the nomination of the National Academy of Sciences of the United States was awarded to Prof. Ernest Rutherford, of the University of Manchester, England.

PURE ETHER FOR ANAESTHESIA.

Notwithstanding the introduction of several new agencies, ether continues to be the favorite anaesthetic with most surgeons and hospitals, at least in this country, and it is said to be gradually growing in favor in England and elsewhere abroad.

One of the makes attracting unusual prominence at present is that of the "P-W-R" brand, which is of U. S. P. standard and especially prepared to meet the most exacting requirements of surgical practice.

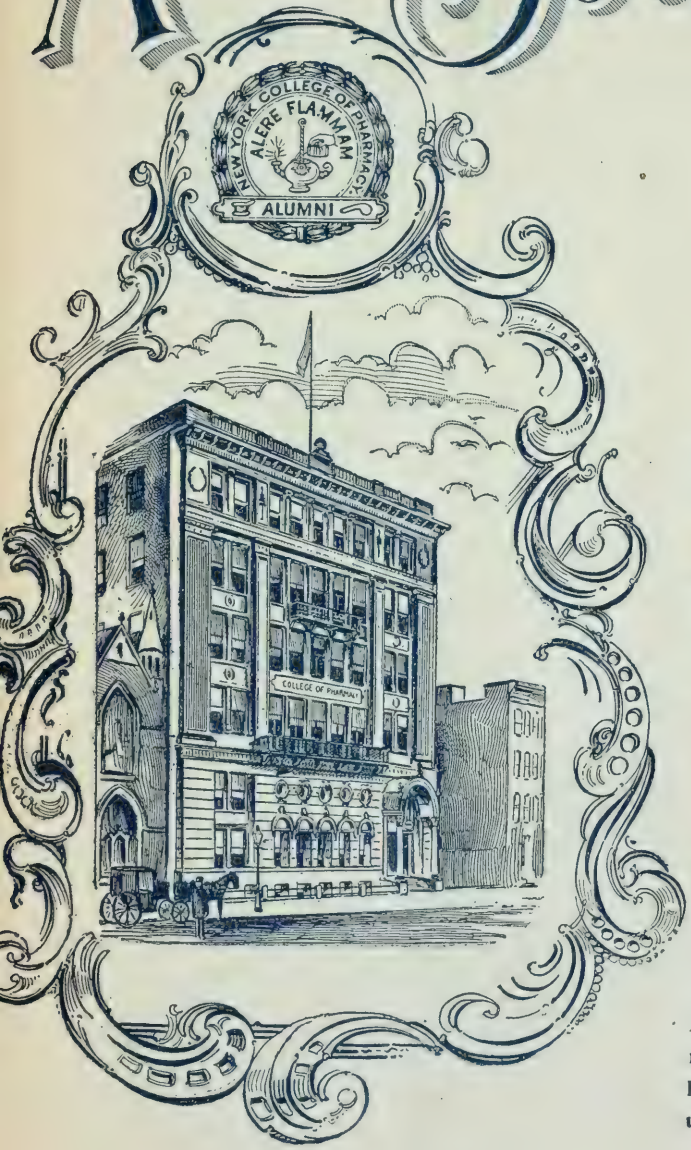
This brand is the product of the well-known manufacturing chemists, Powers-Weightman-Rosengarten Company, Philadelphia, New York and Saint Louis. The house invites correspondence on the subject with surgeons, anaesthesists and hospitals. The "P-W-R" ether is procurable from all first class druggists.

CHARLES GRUBE.

Charles Grube class of 1895 and an "Honor Man," died May 13th, 1910. In May 1909 he was taken ill with Typhoid Fever, (shortly after dispossing of his store at 104th Street and Columbus Avenue). He recovered from Typhoid but the fever left him with complications from which he could not recover. As a last resort he underwent an operation last December. He rallied from this and for a time seemed to improve, so much so that in April last he was able to go to the country. Up to this time there were hopes for his final recovery. But his long sickness had sapped too much of his vitality so after being sick just about one year and making a brave fight he finally had to succumb. He was buried at Woodlawn.

VOL. XVII. AUGUST, 1910. No. 8.

THE Alumni Journal



Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eightieth Annual Course of Instruction of this College began on the 27th day of September, 1909.

Two undergraduate and two graduate programs of study are offered.

The College Course of two years, open to those possessing 15 Regents' counts (one year of high school) leads to the degree of Graduate in Pharmacy, conferred by the College.

The University Course of two years, open to those possessing 60 Regents' counts (graduate from high school) leads to the degree of Pharmaceutical Chemist, conferred by the University.

The Food and Drug Course of one year, designed to prepare for food and drug inspectorship, is open to anyone capable of performing the work. It requires a good knowledge of analytical chemistry and vegetable histology, laboratory as well as theoretical. Those requiring special training may attend our Summer Preparatory Course. Great improvements have been made in our Food and Drug Course for 1910.

Our Graduate Course, of one year, open to our Pharmaceutical Chemists or other graduates of equal rank, leads to the degree of Doctor of Pharmacy, conferred by the University. Our certificate for an additional optional year is recognized by the federal food and drug authorities as the equivalent of the B. S. degree.

For information, address,

THOS. F. MAIN, Secretary,
115-119 West 68th St., New York City.

... The ...

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Pharmaceutical Department of Columbia University.

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CHAS. A. LOTZ, PH.G., EDITOR CURT. P. WIMMER, PHAR.D., ASSOCIATE EDITOR
W. B. SIMPSON, EDITOR COLLEGE NOTES

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COLUMBIA UNIVERSITY

EIGHTIETH ANNUAL COMMENCEMENT

OF THE

COLLEGE OF PHARMACY

OF THE CITY OF NEW YORK

Held at Carnegie Hall, Thursday Evening, May 12th, 1910

At 8 o'clock

(*Continued from July Edition*)

I must take this opportunity to say a word also regarding the value of general reading. Dr. Van Dyck says that he dined in New York once with people whose wealth amounted to $30,000,000, but their conversation was worth about 30 cents. That is true not only of New York, but of other places. We find men able to talk shop but nothing else, and the one thing they are able to talk about we do not want to listen to. We are just as incapable of listening to anything but talk about our own profession or business as we

are incapable of talking about anything else. One reason for the lack of intercourse in the profession is, in my opinion, our ignorance of general literature; we haven't a common meeting ground. Such a meeting ground is useful if only as a place to start from. Let me, therefore, urge upon you the importance of reading the great books of the world and the more important of the newer books. I urge this not merely because it will furnish material for conversation, because it will facilitate intercourse between the profession, but because it will make possible the understanding of the life and works of men in other professions and occupations; it will make it possible for members of the profession to adapt their service to the changing needs of men in other fields of human activity.

I need not here discuss the value of the world's great books. We all know their importance as a revelation of the past, of the world beyond our horizon and of the world to come. They revive for us the age of wonder, the age of heroes; they open to us the best society of all the ages, Plato and Dante and Goethe will admit us to their company. We may share too, in the adventures of Marco Polo and in the travels of Washington. In books of science we become spectators of the world of creation, in technical books we become partners in its labors; in political literature we converse with kings and statesmen. Works of travel, biographies, history, discover to us the life, the thought and the feeling of our fellows, and what is true of all these classes of literature combined is true of the newspaper. I am one of those who believe that no reading is more important than the reading of the newspaper. The only thing about it that I deplore is the belief that the reading of the newspaper is sufficient, the reading of the morning paper or the evening paper is too often the end of wisdom. It should be only the beginning.

In urging the importance of more professional and general reading I do not wish to be understood as urging it at the expense of other things. The man who stands around with a book in his hand trying to do things is to me one of the most pitiable objects in the world. We must recognize from the beginning that for the able man there is little or no time for reading during business hours; indeed, I am inclined to believe that reading is scarce respectable until night has come; but just as it is important to recognize that there are times when we should not read, so it is important, equally

important, to recognize that there are times when we should read, when, if we are not reading, we are doing something else that we ought not to be doing. It is that time which I urge you to devote to learning; it may not be much time, but however little it should be, if used carefully, progress must be made.

In conclusion let me say that the officers of the University wish to do everything in their power to promote your studies in the future as in the past. As members of the University you are members of a great fraternity; each member of that fraternity is anxious to promote the welfare of every other member; he is particularly anxious to promote the study of every other member, because he believes that study is of fundamental importance. It is that belief that has led him to join this great company of students. Not only will your instructor watch your career and seek to be of service to you in the future as in the past, but the officers of the Library too, hope to be of assistance to you from time to time, perhaps of greater assistance to you as graduates than they have been to you as undergraduates. The business of librarian is not to take care of books but to take care of readers. As long, therefore, as you are readers it will be my duty and that of my colleagues to render you such service as is in our power.

My distinguished and venerated predecessor in office, Dr. Canfield, looked forward to the time when we should have in the College a great library, a library which should be useful to students not only during their college year, but in later years. I am confident that the time is not far distant when some of the Alumni and friends of the College will make this service possible. It ought to be possible for us to place in their hands, whenever you need it, all the most recent information upon any subject of interest to you. It will be possible to do this, I believe, in the near future.

In conclusion may I, as representative of the University, congratulate you members of the graduating class upon the completion of your collegiate year, upon your entrance upon the career which you have chosen. I must also congratulate you on the opportunity that you have had of listening to the teachings of he who presides over these exercises to-night, Dr. Chandler.

Episode Populaire ..... Stern

AWARDING THE TRUSTEES' SPECIAL PRIZES.

George C. Diekman, Ph.G., M.D.

Members of the Faculty, Board of Trustees, Class, Ladies and Gentlemen:

In explanation of the applause with which my entrance is greeted, I may say that I have $300. It has become my very pleasant duty and privilege to present this evening the Trustees' Prizes.

I do not think that what I am going to say now, will be of as much interest to the audience, as will be the awarding of the prizes, but I am certain that it will interest the members of the Class, the members of the Board of Trustees and the members of the Faculty.

At the Pharmecopoeial Convention, whose sessions just closed, there were elected no less than six representatives of this College to serve either as members of the new Revision Committee, or as officers of the Convention.

In order to explain what these Trustees' prizes really mean, I will say that the number of young gentlemen and ladies who are selected to compete for these prizes are taken from the Honor Roll which was read early in the evening, besides that such students as have shown special proficiency in any one department may be required or requested to participate in this examination. This examination, as you may imagine, is very severe. The Faculty is at times inclined to be a little lenient in its judgment of students for the final examinations; there is no leniency shown, however, when the present examination is under consideration, so that these gentlemen whose names I shall call in a few minutes represent the essence of the class. They represent in their respective departments, as I have said just now, the essence of the entire class. This examination is chiefly practical, a special examination; it isn't theoretical, it isn't anything a man can learn from a book test. He has got to work in the laboratory,—chemicals, drugs, and got to manufacture and identify them in the course of preparation and otherwise, and it is something that they have gone farther into than the course required; they studied more than the course called for, and they show a great efficiency. I might say that these prizes are to be awarded this year.

First, the price in Materia Medica will be awarded to Mr. Frederick Yaffa; the prize in Chemistry will be awarded to Mr. Walter Regnault and the prize in Pharmacy will be awarded to Mr. Leo Roon.

I want to say to the audience that these three gentlemen all attained positions on the roll of honor of the general class, though this honor here is perhaps not entirely due to them alone. I might further say that Mr. Regnault, the gentleman in the center, is at the present time, enjoying the privileges of a Manhattan free scholarship. I might say that Mr. Roon has obtain a senior scholarship last spring, and Mr. Yaffer certainly would have obtained a scholarship had there been any left. I want to say for Mr. Yaffer, however, that he has been extremely conscientious, a thorough student in both his senior and junior year, the result now showing.

Now, gentlemen, I present you with the prize by the Trustees, which consists in each instance of $100, and I trust that your further career in pharmacy may be such that many more prizes may be awarded to you.

Polonaise from "Mignon".....Thomas

VALEDICTORY ADDRESS.

Valedictorian, Alvin E. Kuhlmann.

Mr. President and Members of the Board of Trustees:

Under your intelligent guidance, the College of Pharmacy has arisen from the faltering stages of incipiency to one of the foremost institutions of specialized study. Yours is the right of the conqueror in looking with pride upon the nation he has founded and the government he has built. It cannot be denied that you men take a great hand in the upward march of civilization, simply because of the fact, that in this age, which is an age of progress in every direction, the world can least do without those who supervise.

All you men, I know, are conscious of the fact, that, if the sums invested in the maintenance of this institution had been invested for the purpose of commercial gain, the profits would be a great deal more than under the present conditions. I do not mean to say that money invested in supporting institutions of learning

is money bearing no fruit, for that is the point I most emphatically wish to contradict. You trustees, by maintaining this institution, although in doing so you are not rated as much by the commercial world, represent the true propagators of advancement, a fact which the majority of people are either ignorant or heedless of, but also a fact of which the thousands of graduates of this institution are fully conscious of. They, the people, picture before themselves that the greatest men are the purely commercial men, the commercial corporation presidents, and vice-presidents, etc. I do not mean to say that these men are deserving of no admiration, for they are; but what I do mean to convey is, that, upon comparing the common good accomplished by these men with the efforts and common good accomplished by you trustees, we find that glory and esteem are not fairly distributed. Why do I say this? Simply because the purely commercial men—I mean men seeking only to enhance their own individual interests,—their own mountains of gold being the only things thereby benefited,—these men it seems are continually kept in the limelight of greatness, whereas, you trustees who are of course members of a corporation, but differ totally in being members of an educational corporation, and seeking to further the interests of the people by advancing a profession which is most intimately connected with the people,—you men are comparatively kept in oblivion.

How do you men render a great service to the people? Because you are a great factor in the advancement of Pharmacy! And why this? Because you are the link existing between the student-body and the instructing-body. Were it not for you men, where would the co-operation between the student and the instructor,—in other words, the means,—the means, I say, of the promulgation of the knowledge of the preceding generation to the present generation be? The answer is obvious. Were it not for the trustees, no progression from the Pharmacy of the past to the Pharmacy of the present and future could exist. Under these conditions, of course, the advancement of a profession which so seriously concerns the people would materially decrease, resulting eventually in very detrimental results.

That is the reason you men render a great service to the people, and in rendering this service you deserve a high esteem not only from the men and women, who were graduated from this in-

stitution, but also, and more so, from the great bulk of people to whom they render their prolific services. Why the adjective "great" is applied to the moneymaker in preference to the educator is a question which cannot be answered to-night. However, as the class of 1910 bids you a hearty farewell, this evening, I can give you one consolation.

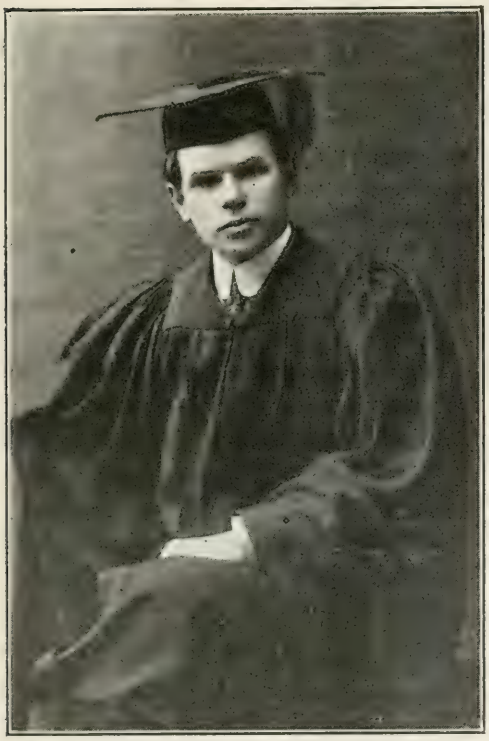
Take cognizance of the men and women whom you graduate year after year from this institution. In the heart of every one of them lies the highest esteem and most profound respect for the trustees of the New York College of Pharmacy,—for the men who are a great factor in the dissemination of knowledge,—for the men who in the largest measure constitute the very foundation of a college education. The class of 1910 regretfully and respectfully bids you a hearty farewell.

Members of the faculty! To those who are to-night absent and to our worthy professor of analytical chemistry, Dr. Anton Vorisek (pointing to a box on the first tier), the class of 1910, if indebted to anybody, is certainly indebted to you. As a result of having been associated with you men for the past two years, no one of the class of 1910 can deny that he has profited wonderfully, both along educational and along moral lines. The world little knows what benefits have been reaped through you, little the world knows that its steady advancement is due to your indefatigable energy in unearthing scientific facts, the world little knows the stand which you take in fighting ignorance and developing the highest attainments of the human race. The professions, and as a direct result, the people owe their present degree of development, in a large measure, to the class of individuals to which you belong. Take away the college instructors and you will place the prince of retrogression—ignorance on a pedestal—take away the college professors, take away the men who sacrifice pleasure for the purpose of scientific inquiries, and you will blot out the spirit to which the indispensable telephone and telegraph, the wonderful Roentgen rays and the greatest of all accomplishments, the successful combating of disease owe their very existence. This is a fact with which the ordinary layman is unacquainted, and this in turn is why the homage due to you is not entirely yours. However, rest as it may, the class of 1910 will endeavor to be foremost in espousing your earnest cause, and in fostering in the minds of the public that there is no class of individuals which deserves the admiration of the public more than that

body of individuals which is collectively known as teachers, instructors, professors or whatever you may call them. What does the student body owe to you? We all know what a difficult problem it is to impart knowledge in such a manner as to be comprehensible to each and every student, and we also know what an intricate problem it is to reach that point where one can be called competent of instructing. In these two considerations lies the essence of what the student owes to you. The student is indebted to you for the various qualifications which enable him to go forth into the pharmaceutical world to practice successfully—successfully I say, one of the most important professions which the necessities of the world demand. He, as a pharmacist, is not only indebted to you for the valuable knowledge which you have imparted to him, but also for the great part you play in raising the standard of his profession. I cannot go on to enumerate the facts which make it all important for you men to continue to render your most valuable aid in the advancement of our profession; I cannot go on to out line the whys and wherefores of what the profession owes to you; I cannot go on to point out the causes of the delinquency of praises which are due to you, but I will go on to state that I firmly believe that there are a few, especially the invincible Mr. Regnault, and a few from whom the opportunity of partaking in the glare of this evening, has, by various circumstances, been wrenched, who, as a result of the educational impetus given them, possess energy and moral courage enough to carry on the work in which you are engaged. This is one of the most far-reaching results of your efforts in our behalf, and I know it is the one and only thing which will make your hearts dance with glee. As the class of 1910 bids you a farewell, I wish to say one thing more,—that you men as profound scholars of the noble study of nature and natural processes, deserve a high, if not the highest, esteem which human beings are capable of giving. The class of 1910 will never forget this, for in their hearts monument after monument will be erected in honor and commemoration of the men who are the nucleus of the world's progressive metamorphosis,—of the men who constitute the strongest links in the chain of the world's progress,—of the men who are directly responsible for the highest attainments of one of the world's most respected and indispensable professions.

To be continued.

JOHN ALFRED STEFFENS, Ph. G., Ph. C., Phar. D., C. U. C. P., 1910.



We take pleasure in presenting the photograph of one of our recent graduates, John A. Steffens.

Dr. Steffens has just received his degree as Doctor of Pharmacy and almost immediately afterwards was offered a position as Chemist and Bacteriologist to the Ponce Sanitary Milk Company, of Ponce, Porto Rico, which position after due consideration he has accepted and is now down in Ponce.

He was born November 14th, 1890 in Brooklyn, N. Y., and attended the Public and High Schools there; after leaving high school he went with his parents on a trip to Europe, and when he returned later he secured a mercantile position, which he followed for a time, but his inclination was towards Pharmacy and Chemistry, more so the latter, with the result that he took a course in a preparatory school, as he wished to secure enough points from the regents of New York State, so that with what points he already had from his high school course would enable him to enter a University and take a course there. He finally decided to matriculate as a University Student in the New York College of Pharmacy, which he did in the fall of 1907. During his junior year there he was appointed assistant in the Pharmaceutical Laboratory which position he held until recently, when he left to assist a sanitary expert for a short while. He graduated as Ph. G , as an honor man in May, 1909, he delivered the Valedictory for his class, and this valedictory was exceptionally well prepared and delivered, he

having prepared it entirely, and soon after he received a letter from Prof. Rusby, complimenting him on the excellency of it as well as its delivery.

Being a University Student he continued his couse of studies until the following June, when he received the degree of Pharmaceutical Chemist from Columbia University. On this occasion he was the recipient of the $200 Breitenbach prize, and also the Kappa Psi prize of a gold medal.

Still continuing his studies: he began the Post Graduate course, which he completed June last and was awarded the Faculty prize. Here is a young man who has certainly been successful in the prime of life, through pluck and perseverence in his studies and labors and we hope that in his latest undertaking he will meet with the same success and good fortune which befell his lot while a student in our grand old college, and may he never forget his almer mater, she who has helped to place him on a plane where any one may justly feel proud and can look back in retrospect and say I feel contented with what I have done and may I have strength and perseverance to do good work in my chosen vocation in the future and perhaps link my name in future years with the great men of my day.

CLASS NOTES.

Julius F. Schirott sold his Bensonhurst pharmacy at Twenty-second Avenue, corner of Eighty sixth Street, Brooklyn, N. Y., to Wilmot E. F. Fanning, N. Y. C. P., 1891. Herman Henry Breuer, N. Y. C. P., 1892, was the broker who brought about the sale. Mr. Schirott purchased the drug store in 1903 and increased the business to such an extent that today it is one of the busiest drug stores on Long Island. Mr. Schirott intends to travel in Europe. Mr. Fanning also owns the pharmacy on Seventh avenue at the corner of Union street, Brooklyn. Mr. Breuer received a written testimonial commending his Affidavit System of selling drug stores from both Messrs. Schirott and Fanning.

Dr. C. P. Wimmer, formerly instructor in pharmacy in the New York College of Pharmacy, was appointed assistant professor of pharmacy on July 1st.

The smiling countenance of Dr. Wm. H. Ward may be seen any day at Hegemans, 200 Broadway, where he receives the Prescriptions. Lets hear from you William.

Dr. Justin S. Brewer, 1902, recently chief of the Pharmaceutical Laboratory of the Napoleon Pharmacal Co., of New York has entered into partnership with A. Elson formerly of Geo. Lueders & Co., and are known as Elson and Brewer; we call attention to their advertisement on another page.

Charles Holzhauer, the widely known and popular N. Y. C. P., Ph. G., of Newark, N. J., combines horticultural pursuits with the practice of Pharmacy, and in descending from a cherry tree on his grounds the other day he had the misfortune to slip and fall heavily, sustaining a fracture of the wrist bones which will incapacitate him.

BLIZZARD CLASS NOTES.

The boys of the "Blizzard Class" 1888 have always been prominent in pharmacy. Diekman, Sears and Tuthill are or have been members of the N. Y. State Board of Pharmacy. David Strauss is a member of the New Jersey State Board, Raubenheimer is a member of the National Formulary Revision Committee and was Chairman of the Section of Practical Pharmacy and Dispensing at the recent Richmond Meeting of the A. Ph. A and was elected Secretary of the Historical Section. At the U. S. P. Convention, Washington, three of the Delegates were members of the "Blizzard Class", namely Diekman, Tuthill and Raubenheimer. It is most certainly an everlasting credit to the class of 1888 that Diekman and Raubenheimer were elected members of the U. S. P. Revision Committee.

Very prominent, indeed, was the "Blizzard Class" at the recent N. Y. State Ph. A. Meeting at Saratoga Springs. No less than five of its members were present and took active part in the proceedings. There was Brown from Sag Harbor, L. I., the valedictorian of the class of 1888, who is still a good "talker", there was Prof. Diekman of the N. Y. C. P., who is so fond of telling a joke, there was Raubenheimer from Brooklyn, who much rather attends a Pharmaceutical Meeting than a game of baseball, there was Sears from Auburn, as quiet and dainty as ever, and there was Prof. Tuthill of the Brooklyn C. P., as earnest and dignified as always. Another member of the class who also expected to be present, Fred. Clarence Viele of the Mightiosing Glen, Falls, but unfortunately had to go to New York on business.

In the election of candidates for appointment on the New Board of Pharmacy held at Saratoga Springs, two members of the "Blizzard Class" were elected: Dr. Geo. C. Diekman and Chas. B. Sears, the former receiving the highest number of votes cast, namely 83.

At the recent New Jersey State Ph. A., two of the boys of 1888 were in attendence, David Strauss of Newark, the Treasurer of the State Board of Pharmacy, and William Pitt Rich of Verona, the Chairman of the Membership Committee, who brought in 27 new members. Rich was also elected second Vice-President.

May the members of the "Blizzard Class" continue to take an active interest in Pharmacy, so we can report on their doings and accomplishments frequently!

The "Blizzard Class" was not as well represented as in former years at the Outing of the N. Y. Deutsche Apotheker Verein held at Witzel's College Point on July 7th. Philip Matty, Fred. Plump and Otto Raubenheimer were present and regretted the absence of Arnemann, Diehl, Diekman, Tuthill, Volland, Oetinger and Wernert. The Outing was as usual a great success and the splendid dinner helped to increase Witzel's fame.

Otto Raubenheimer, *Reporter*,
1341 Fulton St., Brooklyn, N. Y.

COLLEGE NOTES.

The College is now in the midst of the vacation period and the outsider or casual visitor would think it deserted, but there is a great deal doing at present in the laboratories. These are all being painted and renovated, and will make a very fine appearance in the Fall. Then we have quite a number of special and Summer Students at work.

The matriculants for the coming session are registering daily and all signs point to a large Junior Class. We also expect to have a larger Graduate and Food and Drug Class than ever before.

Many of the 1910 Graduates have called at the office to exchange greetings, and we have yet to hear from any who is not doing well in the work he has undertaken. We have frequent calls for clerks and at almost all times can obtain positions for those who are out of work.

The Treasurer of the College Mr. C. O. Bigelow and Mrs. Bigelow are in Europe where they intend to make an extended tour, not returning until October. The Dean is in Mexico and Profs. Coblentz and Diekman are away from the City at the present writing.

The new prospectus has been published and a copy mailed to every Pharmacy in the Eastern States—1800 having been addressed and mailed in a weeks time, and we will be pleased to mail a copy to any one who might care to send for one.

Altho too early as yet to have made the final plans for the Athletic Association, organized at the close of the last session, still we can safely promise that arrangements will be made so that teams for outdoor games will have a separate room for dressing in the Gymnasium at the University and for a basket-ball team we will be able to use the 22nd Regiment Armory, across the street from the College.

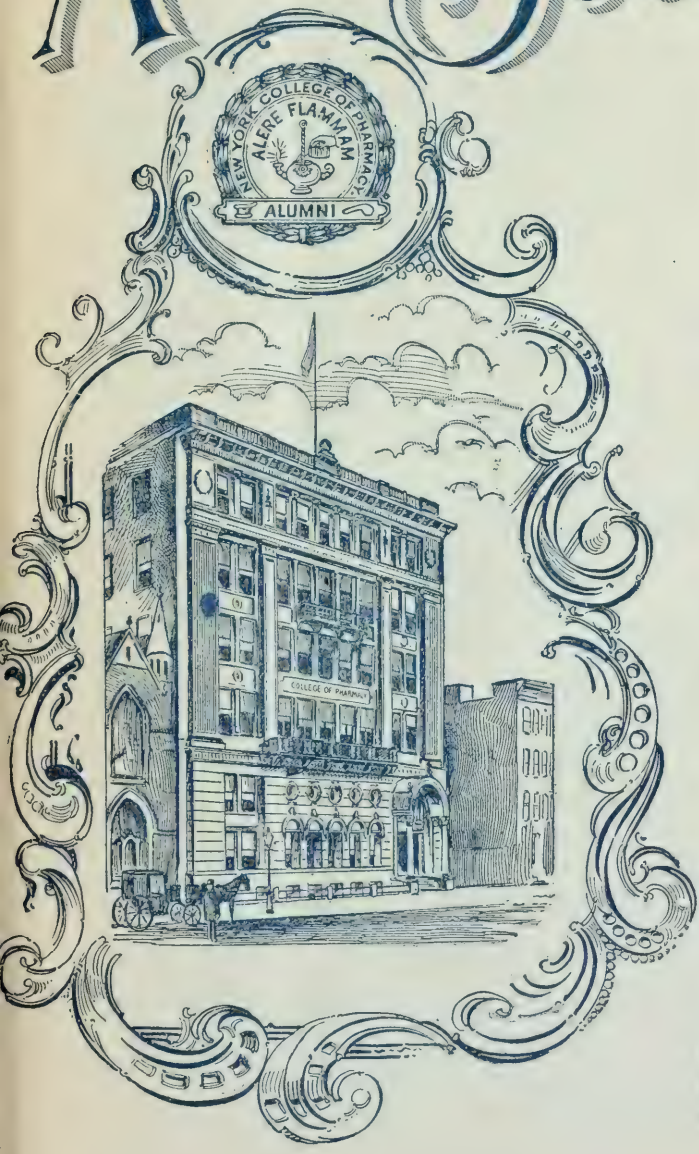
OBITUARY

Frank P. Hoffmann, a member of the class of 1907, and the Kappa Psi fraternity died June 24, 1910. The Alumni Association extends its sympathy to his bereaved relatives.

Peace to his ashes.

VOL. XVII. SEPTEMBER, 1910. No. 9.

THE Alumni Journal



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PUBLISHED AT 43 FULTON ST., NEW YORK CITY.

CHAS. A. LOTZ, PH.G., EDITOR CURT. P. WIMMER, PHAR.D., ASSOCIATE EDITOR
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EDITORIAL.

As many of our readers are directly interested in an ordinance, relative to the sale, at retail, of morphine and its salts, either alone or in combination with other substances, recently enacted by the New York City Board of Health, we deem it our duty to call attention to the ordinance at this time. The full text of the notice issued by the Board of Health, is as follows:

At a meeting of the Board of Health of the Department of Health of the City of New York, held August 26th, 1910, the following resolution was adopted:

RESOLVED, That Section one hundred and eighty-two of the Sanitary Code of the Board of Health of the City of New York be and the same is hereby amended so as to read as follows:

Sec. 182. No cocaine or salt of cocaine and no morphine or salt of morphine, either alone or in combination with other substances, shall be sold at retail by any person in the City of New York, except upon the prescription of a physician.

(Signed) EUGENE W. SCHEFFER,
Secretary.

The sale of such articles as Paregoric, Brown Mixture, Lead and Opium Wash, Dover's Powder, and many others is thus declared illegal, except upon prescription.

While the indiscriminate sale of Morphine or its salts, either in bulk or in tablet or pill form must meet with the condemnation of all right-thinking pharmacists, it would seem that the inclusion among the prohibited articles of preparations like such enumerated above, is unjustified and entirely unnecessary. It is stated that the Board of Health holds the opinion that the public should not be permitted to purchase cough mixtures containing a small quantity of opium, as the administration of such remedies, particularly to children, was accompanied with great danger.

If this be so, then this danger has existed for many, many years, and some such ordinance should have been promulgated long ago.

We believe, however, that the opinion of the Board of Health, if correctly stated, is, to say the least, debatable.

It will, in our opinion, be difficult to convince the unprejudiced, that the administration of Brown Mixture to a child, as this is usually done by mothers, is a dangerous practice, or one likely to produce a habit.

We are also informed that the Health Board is of the opinion that the administration of Paregoric to children, as usually practiced by mothers, is responsible for a greater mortality among them than the administration of all other preparations of like character containing opium or morphine, such as soothing syrups, etc.

If this opinion is correctly stated, then again we would say, that in our opinion, the question is certainly debatable.

We grant that such a thing as "Paregoric Fiend" exists, but do not believe that he is great in number. Besides, we fail to understand how such persons would be deprived of this article, when so many avenues for its obtainment are available, in spite of the ordinance enacted.

Will the mother who is supposed to have a desire to "dope" her infant, be restrained from so doing by ordinance. We doubt it very much. Physicians, or at least persons in possession of a medcal diploma, and who are duly permitted to practice medicine, have been found, who are willing for a fee, and that not necessarily a large one, at times as low as 25c., to prescribe cocaine.

Would the same persons hesitate to write a prescription for Paregoric or other of the proscribed articles? We again doubt it.

Then again, would not such a mother, if actually compelled to first obtain a prescription, endeavor to obtain a much larger quantity of the article than she is now in the habit of purchasing, thus obviating the necessity of frequently obtaining a new prescription.

It is our firm belief that more than an ordinance, promulgated over night, will be required to cause the general public to refrain from the use of these preparations. A campaign of education would be required, among such as are to be made acquainted with the dangers surrounding the use of these preparations.

We venture to say that the illegitimate use of such preparation will not, in the least degree, be interfered with by this ordinance. On the other hand, the legitimate use of them will be seriously interfered with, and purchasers hampered.

Then again, supposing it were possible to cut off the supply of Paregoric in cases where it is suspected that it is to be used for purpose of "doping" a child, would not such a mother look for other means to accomplish the same end. Would she not be able to obtain alcohol or alcoholic liquids in any quantity, or would she have any difficulty in obtaining bromides, or other sleep producing drugs?

It was suggested that perhaps the ordinance would interfere with the obtaining of Paregoric by persons addicted to its use, such as drug clerks. This suggestion comes from one in public life who claims to have known of cases where such practice prevailed. Here again we mildly suggest that the clerk who drinks Paregoric will have no difficulty in obtaining same, ordinance or no ordinance.

Meanwhile, however, we must remark that the Board of Health undoubtedly has the power to frame such an ordinance, and to enforce it strictly in all cases of violation. Likewise we would remark that in our opinion the enforcement of the ordinance will be well nigh impossible, not because the pharmacist is not law-abiding, but because the public is not in sympathy with so drastic a measure. If the Board of Health is right in its contentions, it will first have to convince the public. Facts, when brought to the attention of the public, may convince, an ordinance never will.

The writer of this knows of a person who on this day, September 6th, took a trip, via trolley to Yonkers where the ordinance is not

operative, and returned with an assorted lot of the prescribed articles, Paregoric and Cholera Mixture, enough to supply his own demand and that of several neighbors.

We wish to say that we believe that the Board of Health is guided only by honest motives in this matter. But we also believe that the action taken, in reference to the common household remedies is to say the least unwise and entirely unnecessary. We believe that the interested parties, the public first of all, and then the pharmacists should have been consulted before any action was taken. When it is proposed to enact a State Law, due notice is given, and hearings may be had by those interested.

We are surprised to learn that Codeine and Heroine and their salts, or preparation containing these are not included among the articles whose sale, except on a physician's prescription, is prohibited by the ordinance.

It would seem to us that the indiscriminate use of Codeine and Heroine is accompanied by far greater danger than the use of Brown Mixture or Lead and Opium Wash. It would be interesting to know by what process of reasoning the Board of Health has arrived at its seeming conclusion that they are not.

We believe that the ordinance would have received the hearty support of the public and of the pharmacist, had it been confined to restricting the sale of Morphine and its salts, in any form, except on physicians' prescriptions. That part of the ordinance which reads "or in combination with other substances," should have in our opinion been omitted, or at least so modified as to permit the sale of common household remedies in use for many years.

We furthermore believe that Codeine and Heroine and their salts should be included with the articles covered by the ordinance.

ALUMNI PIN.

Only graduates are permitted to purchase and entitled to wear this pin. It is distinct and different from a class pin, which can be worn by any member of a class. The pin is made of solid gold with blue enamel. Its style is shown on cover. Your name, year of graduation, and the pin number will appear upon the reverse side. The cost is $6 if delivered, or $6.15 if sent by registered mail. Pins may be obtained upon application to Dr. George C. Diekman, 115 West Sixty-eighth street, New York City.

A METHOD FOR THE DIFFERENTIAL DETERMINATION OF CRUDE DRUGS.

The following method for the differential determination of Crude Drugs is based entirely on their more or less variable physical properties. That alone would preclude any assumption that the scheme would give infallible results, like those of a chemical analysis. Further uncertainty is introduced by the different meaning that a description will give rise to in the minds of different readers.

A combination of two or more properties may define a drug quite discretely, but when inclusion or exclusion depend on a variable factor many possibilities of a mistake arise.

There are, however, limits to the variation of the properties and within these limits it has been sought to place the scheme.

Hence, even with its many defects it may serve its purpose at some moment of necessity for one not deeply versed in Pharmacognosy, or if it fail in that, serve to stimulate improvements on this.

J. A. STEFFENS, Phar. D.

DIFFERENTIAL DETERMINATION OF CRUDE DRUGS

By J. A. STEFFENS, Phar. D.

Written Especially for *The Alumni Journal.*

A. Roots, Rhizomes, Corms, Bulbs.

1. HEADS *with Rootlets.*
   - Odorous
   - Inodorous — Veratrum
     - Roots Numerous — Valerian
     - Roots Few
       - Yellow internally — Levisticum
       - Yellowish internally — Angelica

2. HEADS *with tap-root.*
   - With a Keel longitudinally, light — Senega
   - Without Keel, longitudinalla, dark — Taraxacum

3. SLICES.
   - Pink *internally* — Iris
   - Yellow-Orange — Calumba
   - Yellow-Brown — Polygonatum—irregular
   - Yellow-White — Scilla —center-removed
   - White
     - Non Starchy — Bryony
     - Starchy
       - Reniform-shape — Colchicum
       - Irregular-shape — Arisaema
   - Gray——————————————————Dracontium

4. PROMINENTLY WARTY.
   With Rootlets.
   - Fine Roots, Close
     - Stem Scars Hollow — Spigelia
     - Stem Scars Elevated
       - Small — Serpentaria
       - Large — Aspidium
   - Thin Rootlets, Sparse
     - Large, Gravish — Gelsemium
     - Small, Blackish — Arnica
   - Heavier Rootlets, Close
     - Large Scars, Black — Caulophyllum
     - Small Scars, Brown — Cypripedium

4. PROMINENTLY WARTY.—Continued.
   With Rootlets.
      Heavy Rootlets, Sparser, Strong
         Black — Leptandra
         Reddish — Krameria
      Long, Fibrous Rootlets, Brownish — Gilenia
   Without Rootlets.
      Taste Pungent
         Brownish Red, Large — Galanga
         Brownish Gray, Small — Asarum
         Yellow — Curcuma
      Centers, Pink
         Smoothish Bark — Sanguinaria
         Pitted Bark — Tormentil
         Knotted, Light Brown — Geranium
      Center, Bright Yellow — Hydrastis
      Externally Brown-Black
         Without Stems
            Center Yellowish — Sumbul
            Center Reddish — Rumex
         With Ascending Stems — Cimicifuga
      Externally Grayish
         Irregular, Massy — Inula
         Quite Regular, Blacker — Pareira
      Externally Brown, Knotty, Tortuos—Scopola

5. ANNULAR or CIRCULARLY FISSURED.
   Tapering
      Yellowish-Pithy—Asclepias
      Brown, Tortuos, Fissured
         Small — Rio Ipecac
         Large — Carthagena Ipecac
   Not Tapering
      Aromatic — Calamus
      White Pith, Fissures — Apocynum

6. LONGITUDINALLY WRINKLED.
   Without Rootlets.
      Pungent — Ginger
      White,
         Irregular — Cinchorium
         Brown-Spots, Ridged—Althea
      Yellow — Licorice

6. LONGITUDINALLY WRINKLED.—Continued.

Without Rootlets.

Orange		Frazera
Brown		
	Tufted Grown—Pyrethrum	
	Annular Medullary Rays	Phytolacca
	Bark Tough, Brown	Lappa
	Bark, Soft, Abraded	Belladonna
	Bitter	Gentiana
	Sweet	Licorice(Glycyrrhiza)
Black, Smaller		Symphytum
Larger		Stillingia

With Rootlets.

Roots few, fine, Pithy, Soft Bark—Sarsaparilla	
Roots few, at nodes, Hard Bark—Menispherum	
Yellow-center	Xanthorrhiza

7. SMOOTH.

With Rootlets.

Externally Pink	Hydrangea
Externally Yellow	Convallaria

With Rootlets.

With Bark	Podophyllum
Without Bark	Aspidium

TUBERS.

Globose, Odor Sweet-Smokish	Jalap
Conical, Taste Tingling, Center Mealy	Aconite

WOODS.

Yellow, Bitter Taste	Quassia
Red, Odorous-Roseate	Santalum
Faint Agreeable	Hematoxylon
Inodorous, Color Sol. in Alc.	Santalum Rubrum
Gray Brown,	
Hollow Center, Angled Edges	Dulcamara

BARKS.

N. B.—Color is ascertained by rubbing with damped finger.

I. COLOR OF OUTER AND INNER SURFACES NEARLY ALIKE. (These, except Juglans, are usually lacking the outer Bark, Ulmus, Quillaja and Magnolia sometimes have it).

Blackish — Juglans

Whitish

Taste Mucilaginous — Ulmus

Whitish, Streited Red

Taste Irritant — Quillaja

Reddish Brown

Striae Slight,

Sometimes with large parts, Magnolia

Striae Prominent — Cinchona Rubra

Light Brown

Bristle, Aromatic — Cinnamomum Zeylanicum

Soft, Friable — Hamamelis

II. COLORS DIFFERING.

Outer Gray to Green-Brown

Long Strips

Brownish-Brown — Salix

Rough-Brown, Coarse — Rubus

Yellow internally, Wooly — Evonymue Stem

Shorter Pieces

Thick and More or Less Heavy

Large Carb. Masses — Xanthoxylum (Southern)

Fissures Transverse

Red internally

Fissures intersecting — Cinchona Rubra

Fissures vertical walled — Cinchona

Red to Brown———————Cascara

Fissures Few

Middle Bark,

Yellow-Brown — Angostura

Odorous,

Scaly Bark, Yellowish — Magnolia

Thin, Bristle or Flexibie

Taste Strongly Aromatic

Brittle

Brown — Cassia Cinnamon

Gray to Gray-Brown — Cascarilla

II. COLORS DIFFERING.—Continued.

Greenish Middle Bark	Prunus Virginiana
Internally	
Yellow to Yellow-Green	Barberis
Yellowish, Thin	Xanthoxylum
Light-Brown	Viburnum Opulus
White or Buff	Euonymus
Green to Cinnamon-Brown	
Yellow Fissured or Reticulate Bark—Granatum	
Outer, Red to Deep-Brown to Black	
Long Strips, Narrow	
Fuzzy Brown	Gossypii Radicis
Thin, Ciliate	Mezereum
Soft, Dull, Friable	Hamamelis
Shorter Pieces	
Thick and More or Less Heavy	
Internally	
Purple, Short Stryate	Cornus
Whitish	Leriodendron
Rust Brown, Fragrant	
Internally Grooved	Wintera
Internally Obscurely Striate	Sassafras
Mass Bark	
Irregularly Fissured	Quebracho
Thinner Bark	Viburnum Prunifolium (Root Bark)
Thinnish	
Aromatic	Cinnamomum Saigonicum
Roughly Fissured	Viburnum Prunifolium (Stem Bark)
Smooth Wrinkled	Frangula

VALEDICTORY ADDRESS.

(*Continued from August Edition*)

Classmates:

What I have to say to you this evening, let it create an everlasting impression upon you. The most vital thing which each and every one of you must bear in mind is your duty, first to your predecessors and secondly to your successors. Where do we stand? What is our relation to other men in contributing to the upward strides of civilization. It's simply this: We are the germs of the future progress of our profession,—in us lies the mose delicate part

of the pharmaceutical machine, the part which has during the past two years been handled with the greatest care,—the part upon which the future working efficiency of this machine depends. Let us look to our worthy trustees; they are the mechanical structure of this machine, our noble professors represent the energy inherent in this machine, and what, classmates, are we? We are the glowing arcs, the product of the energy of our instructors, and as such it is our duty to go out into the world to promulgate the knowledge which has been bestowed upon us; it is the duty of everyone of you to exert your greatest efforts in order to accomplish something that will eventually make your existence worth while. Of course, classmates, in striving to attain our end point, many difficult problems must be encountered, but more important than thinking and worrying about encountering difficult problems is the consciousness, that as a result of the past two years, although you may not be on the Honor Roll, you are fully qualified to meet these. Let it not discourage you if someone else, probably less worthy, temporarily and seemingly rides apast you on the road to success. Bear in mind that your success does not depend upon your capacities, it is not gauged by your achievements, but it does depend upon the ratio existing between these two. Your capacities may not be great, however; if you make the most of them you will far surpass men who may be a great deal more talented. However, the one and great thing to bear in mind in weaving your design for the tapestry of success if that the latter is not gained by crowding out your associates in your own interests. Take as an example the life of Napolean. He thought of nothing but trampling down millions of men in order to eventually make himself the ruler of all Europe. He sought for success by showing the most ruthless indifference to his associates. What was the ultimate result of his intellectual but grafting efforts. Instead of making a wonderful success he was an aggregation of a million failures, and one of the greatest checks to advancement that Europe had thus far known. Classmates, this is an example worthy of note, for these same things are enacted daily in the common walks of life. Although you do all you can, there is always the possibility of striking the wrong path, the path of failure. But let it not discourage you. Failure under these conditions is a proof of effort having been exerted, that you are striving to obtain something, that you are breaking away from the old rut of doing things.

Take, as an example the poet Keats, who has written poetry which has neared the mark of perfection as well as any ever written. He sat by the roadside tearing up sheet after sheet,—he studied every failure, and he punished every failure by making it teach him something. Classmates, you do the same,—punish every failure by making it teach you something; if you do, you'll always come out ahead; if you don't you'll probably join the force of gravity and go downward instead of upward.

Classmates, before I go on, I feel it my duty to pay a tribute to the young women of our class. The young women of the class of 1910, as you know, have done wonderfully well, and are fully qualified to go out into the world as the equals of our young men—equals I say, probably their superiors. Not long ago there existed the tradition that women ought not to be educated beyond a knowledge of reading, writing, arithmetic and a knowledge of housekeeping. It was held that they had no right to education; that, however, they needed money they ought not to be allowed to earn it save in menial capacities. Modern civilization has partly put an end to this tradition and, as a result, great colleges for women graduate thousands every year. They have not only proved that they have the right to education, but that to educate them is the safest way to insure the rapid progress of the human race. Take as an example Turkey. What are its women? And as a result what is Turkey itself? In America, however, conditions are totally different. The reason I introduce this digression, classmates, is that many men, not excluding the members of the class of 1910, look down upon and ostracize a woman for undertaking the study of a worthy profession. This is entirely wrong, for let it be remembered that partly as a result of the keen essence of what is morally right and morally wrong, they easily hold their own with men in business and in the professions, and let it not be forgotten that in one of the greatest occupations, the teaching of children, they are by far the superiors of men. Classmates, forget the glittering phrases "Something for nothing," "Easy money" and "Fortunes without work," for these have sent more men to destruction than cannon have ever done. You must sacrifice what you call pleasure; you must be ever ready to decline amusement and as a result you will always be fitted for a better place. Do not follow the beaten path of tradition but branch out; do something new; make a path of your own that leads to some really important achievement and follow it until it has made your existence justifiable.

Now, classmates, as we part to-night, I do not wish any of you to bend your heads in downhearted silence, but, on the con-

trary, look gladheartedly into the future; look for co-operation amongst ourselves, first for the interest of the profession of pharmacy and secondly for the interest of our own selves, always remembering that little saying of Bonta "While we are on the good ship Earth, let's know each other before a wireless calls us home."

Malaguena from "Boadil".....Moszkowski

BENEDICTION

Rev. Floyd S. Leach.

Unto God's gracious mercy and protection we commit you. Lord bless you and keep you. May the Lord lift up the light of his countenance upon you and grant you peace both now and evermore. Amen.

Grand March, "Festival".....Lincke.

OBITUARY.

Wray B. France, a graduate of the class of 1899, died at his home, Windham, N. Y., on Wednesday, July 6th, 1910, of pulmonary tubercolosis.

After a graduation, he was active in the profession of Pharmacy for a number of years in New York City. His health failing, he was advised to return to his home, where it was hoped he would recuperate. For a time his health seemed to improve, but he finally was called away.

In October, 1904, Mr. France was married to Miss Anna A. Balser, of New York City.

His wife and one son, aged three years, survive him. Mr. France was a quiet, unassuming young man, beloved by all.

Peace to his ashes.

William Y. McMullen died at his home at 10 o'clock, August 7th, 1910, after an illness of several weeks. He was taken ill a few weeks ago and an operation was performed for the removal of pus from the gall bladder. A little later peritonitis set in and his condition was critical for several days. He made an excellent fight for life, displaying much courage and vitality.

Mr. McMullen was born in Bristol on August 14th, 1887, the only son of Mr. and Mrs. Enos B. McMullen. He received his early education in the public schools, and then accepted a position as clerk in Bennet's Drug Store, where he was employed for several years. Two years ago he entered the New York College of Pharmacy. He accepted a lucrative position in New York City, but as he was not feeling well he came home for recuperation and rest. He is survived by his parents.

Mr. McMullen was a young man of a genial disposition, and by his kindly manner and thoughtfulness of others, had made many friends.

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DR. DIEKMAN ELECTED PRESIDENT OF THE NEW YORK BOARD OF PHARMACY.

Under the law passed last winter reducing the State Board of Pharmacy from 15 to 9 the State Board of Regents held a meeting and made the following appointments as the new board:

For a term of three years: Clarence O. Bigelow, New York City; George C. Diekman, New York City; Byron M. Hyde, Rochester.

For two years: Judson B. Todd, Ithaca; Alfred B. Huested, Albany; George Reimann, Buffalo.

For one year: Otto Raubenheimer, New York City; John Hurley, Little Falls; J. Leon Lascoff, New York City.

Messrs. Bigelow, Diekman, Hyde, Reimann, Todd and Hurley were members of the old board, and all of the appointees, except Mr. Raubenheimer, were on the list of 25 names submitted by the New York State Pharmaceutical Association.

Mr. Raubenheimer is the only resident of the Brooklyn part of New York City on the new board. He is a member of the Kings County Ph.S., of the American Ph.A. It is a curious fact that in the balloting at the New York Ph.A. meeting at Saratoga Mr. Raubenheimer recived

36 votes and would have been No. 29 on the list had the names not been limited to 25. The 25th man received only four votes more than Mr. Raubenheimer. The remainder of New York City has three representatives on the new board.

At a meeting of the new board Dr. Diekman was elected president; Mr. Hyde, vice-president, and Warren L. Bradt, Albany, secretary. Three committees on violations and prosecutions consisting of three members each, were appointed by President Diekman, the New York City committee consisting of Messrs. Raubenheimer, Lascoff and Bigelow. The board will grant hearings on the first Wednesday of each month.

Rules and regulations were adopted to be submitted for approval to the Board of Regents. Schedule of examinations for license to practice pharmacy will remain as previously drawn up except that examinations will no longer be held at Syracuse. The next examination will be held January 31st to February 3d, 1911. The paragraph in the present regulations relating to prescriptions of opium, morphine and chloral, will be adopted practically as it now stands.

DONATION OF BOOKS TO THE COLLEGE OF LIBRARY.

Mr. Geo. Massey, of the firm of Lanman & Kemp, has donated the following books to the College Library. It is indeed gratifying to hear of these donations from our friends, and it is sure to inspire others to do likewise.

The books donated by Mr. Massey are as follows:

German Pharmacopoeia.
English Pharmacopoeia.
Swedish Pharmacopoeia.
Mexican Pharmacopoeia.
Hungarian Pharmacopoeia.
Danish Pharmacopoeia.
Bacteriology, Sterberg.
Bacteriology, McFarland.
Physiological Chemistry, Simon.
Text Book of Physiological Chemistry, Hammarstein-Mandel.
Gray's Manual of Botany.
Text Book of Botany, Strassburger.
Analytical Chemistry, Qualitative Analysis, Treadwell-Hall.
Foundations of Analytical Chemistry, Ostwald-McGowan.
Microscopy of Technical Products, Hanausek.

Fats and Oils, Lewkowitsch, 3 vols.
Chemistry of Essential Oils and Artificial Perfumes Parry
Rocky Mountain Botany, Nelson.
Text Book of Botany, Vines.
Materia Medica, Greenish.
Effects of Radium on Plants, Gager.
Flora of Montana, Rydberg.
Fresenius Quantitative Analysis, Cohn, 2 vols.
Techno-Chemical Analysis, Lunge & Cohn.
Physiologic and Pathologic Chemistry, Bunge-Starling.
Qualitative Analysis, Prescott & Johnson.
Pharmacognostischer Atlas, Moeller.
Manual of the Trees of North America, Britton.
Flora of the Southeastern U. S., Small.
Text Book of Physiological Chemistry, Abderhalder-Hall
Quantitative Analysis, Olsen.
Pharmacognosie, Vogl.
Recent Advances in Physiology and Bio-Chemistry, Hill.
Technical Methods of Chemical Analysis, Lunge,
trans. by Keane, 2 vols.
North American Slime Moulds, MacBride.

MEN WERE SAD WHEN HE SUNG.

At a certain Scottish dinner it was found that every one had contributed to the evening's entertainment but a certain Dr. MacDonald.

"Come, come, Dr. MacDonald," said the chairman, "we cannot let you escape."

The doctor protested that he could not sing. "My voice is altogether unmusical, and resembles the sound caused by the act of rubbing a brick along the panels of a door."

The company attributed this to the doctor's modesty.

"Very well," asserted the doctor, "if you can stand it I will sing."

Long before he had finished his audience was uneasy. There was a painful silence when the doctor sat down, broken at length by the voice of a braw Scot at the end of the table.

"Mon," he exclaimed, "your singing's not up to much, but your veracity's just awful. You're richt about that brick!"—Exchange.

CLASS NOTES.

Hurrah! At last the indefatiguable Otto Raubenheimer of the Blizzard Class '88 has landed a good prize. The Board of Regents appointed our good friend a member of the Board of Pharmacy under the new law passed last June. Otto certainly deserves recognition as he as been at all times an active and practical worker in the Pharmaceutical field and we congratulate him on his latest achievement.

Besides Otto, on the board where appointed Dr. Geo. C. Diekman, and C. O. Bigelow, which also goes to show that these two gentlemen have also been recognized for the good work they have done on the board in the past and they too are to be congratulated.

Happened to go into the 14th Street Store, New York City, recently and saw Groves, Ph. G., 1900, N. Y. C. P., dispensing drugs and patent medicines for that concern, say old man tell us all about it will you?

We are pleased to announce the coming wedding of Mr. Richard Elting of North White Lake, N. Y., to Miss Ivie Gray of Ellenville, N. Y. The wedding is to take place some time in November. Mr. Elting, a graduate of the class of 1910, has recently opened a drug store in North White Lake, N. Y. We heartily congratulate him and wish him prosperity and much success in both ventures.

A LETTER.

Denver, Col., Sept. 26th, 1910.

The Alumni Journal,

43 Fulton St., N. Y. City.

Dear Sirs:—

As I enjoy receiving The Alumni Journal will you kindly in the future send to my new address, 915 So. Washinghton Street, Denver, Colorado. I made this change the first of June and like Colorado very much. I am at present with The A. W. Clark Drug Co. and like them very much.

Just at present I am nursing a dislocated left elbow caused by my being thrown from my motor cycle. But just as soon as I am able to operate my arm at all I'll be out on it again as I am quite a "bug" over motor cycles. Haven't the speed mania as yet—but you can't tell.

Thanking you in advance for the *Journal.* I remain,

Donald C. Zwiss, '09.

OTTO RAUBENHEIMER'S RECOMMENDATIONS TO THE INDIVIDUAL PRACTICAL AND DISPENSING PHARMACIST.

1. The study of synonyms, pharmaceutical, chemical and botanical.

2. The study of incompatibility, which is very useful behind the prescription counter.

3. The study of pharmaceutical history, especially etymology, origin and history of drugs. It is surprising to learn how few pharmacists know, for instance, the history and origin of such an everyday article as Rochelle Salts.

4. Do not advertise and push patent medicines. If you have to sell them, keep them out of sight.

5. Specialize in drugs and prescriptions. Don't be a jack-of-all-trades, but try to be a "master of one!"

6. Strict adherence to the U. S. P. and N. F. Since these two books have become legal standards, we must strictly adhere to them and suggest improvements, if possible It is also our duty to instill into the physician respect and confidence for these official preparations, so that he will prescribe them.

7. More attention should be paid to the storage of drugs, galenicals and chemicals. Even the U. S. P. might pay more attention to this. The average druggist continues to keep his essential oils in stock bottles, on the top shelf, exposed to the light, and he continues to keep his Ammonium Carbonate in a drawer, and his syrups near the radiator.

8. Preparation of galenicals. Above all, the pharmacist, in order to deserve the name of pharmacist, should prepare his own galenicals. From reliable sources I am informed, sorry to say, that 75 per cent of the druggists in the United States buy their galenic preparations, including such simples as paregoric, spirit of peppermint and tincture of ginger.

It is, furthermore, absolutely necessary that the pharmacist keep up his stock of U. S. P. and N. F. preparations, so as not to disappoint the physician and patient.

9. Pharmaceutical library. I shall earnestly recommend to the pharmacist the acquisition of a pharmaceutical library of books and journals. It is surprising to note how little attention is paid to this.

How a pharmacist can get along with merely a copy of the U. S. P. and N. F., the latest editions of which he is compelled to possess according to most state laws, I am at a loss to understand.

10. Last, but not least, the retail pharmacist should bring out his individuality. Prove to and impress upon the physician and the public that you fully possess the necessary pharmaceutical knowledge, that you are worthy of their confidence; in fact, that you are a better pharmacist than your competitor. Such is especially true if the latter keeps a cut-rate store, or happens to be a corporation store. This individuality is, in my opinion, the salvation of the small retail pharmacist, especially the one who has a family trade and who comes in personal contact with his customers. They might patronize the chain or department stores if in need of a cut-rate article, but they will patronize the pharmacist who has gained their respect and confidence, who has established his individuality, and who has proven that he pays special attention to drugs, chemicals, galenicals and prescriptions. This will be a struggle of knowledge against capital. Let us hope that knowledge will be the victor; at least the savior of practical pharmacy and dispensing!

Elixir of Terpin Hydrate.—The July Bulletin of the American Pharmaceutical Association contains a note by Edward N. Webb, of Columbus, Ohio, on the preparation of elixir of terpin hydrate. He first points out two faults of the National Formulary preparation. Forty per cent. of alcohol is too expensive and makes the preparation unpalatable, and, secondly, exposure to cold causes the terpin hydrate to crystallize out so that it is almost impossible to get it redissolved. Some have ascribed this crystallization to "sugar." It is not sugar. Sugar crystals settle to the bottom of an elixir. These crystals (terpin hydrate) rise to the surface. Other proofs of this are not wanting.

To prevent the separation of terpin hydrate some have recommended to add more syrup. This makes the matter worse. Adding acetic acid is equally futile. When made after these formulas elixirs of terpin hydrate may often be dispensed if never allowed to become really chilled. However, if one is in the business of supplying elixirs in quantity made after these formulas, let him beware lest his reputation and purse become impaired.

Mr. Webb gives the following as "a correct formula," furnishing a preparation containing one grain of terpin hydrate in each fluid drachm:

Terpin hydrate (1024 gr.), 2 oz., 149 gr. av..... 66 Gm.
Alcohol (25 per cent. of finished elixir), 2 pints..... 960 C.c.
(Heroin hydrochloride, or codeine phosphate, or bromoform, or chloroform, etc., q. s.)
Flavor, a few minims; glycerine, to make 1 gallon.....3840 C.c.

If the alcohol and the glycerine are previously warmed only one-half of the amount of alcohol will be needed (12½ cer cent.). If the alcohol is increased to 40 per cent. as much as four grains of terpin hydrate to each fluid drachm may be employed.

Any flavor desired may be employed. The following will not discolor the preparation and makes a more than ordinarily agreeable combination: Oil of anise, terpeneless, 3 minims; oil of orange, terpeneless, 5 minims; oil of lemon, terpeneless, 13 minims, to each gallon of the elixir.

GLYCERINE FOR SUGAR.

By N. A. Grauer, Richmond A. Ph. A. Meeting.

A thing which every pharmacist wishes to do, is to manufacture and dispense a preparation which will be permanent both in color and constituents; and among the preparations of the U. S. P. VIII, the Syrups of Hydriodic Acid, Ferrous Iodide, Hypophosphites and Hypophosphites Compound, have been the subject of much investigation and experiment.

As at present prepared, they are not stable, and not only darken in color with age, but unless made with absolutely pure materials they darken almost at once, consequently the adoption of satisfactory formulas for these preparations would be a great step in advance.

Owing to the dislike of many physicians in the vicinity of the pharmacy where I am employed concerning the prescribing of proprietary articles which are stable, and upon their suggestion, we began an investigation of these syrups, and finally found, that by the elimination of the sugar and the substitution of gylcerine for it in the U. S. P. proportions, that the preparations so made were stable and permanently clear, and we have been dispensing them upon their prescriptions for the past three years to their entire satisfaction.

SOME PHARMACY NOT TAUGHT IN THE SCHOOLS.

By P. Henry Utech, Ph. G., Richmond A. Ph. A. Meeting.

It is my purpose to present some of the notes and observations which were gathered en route and which have been of practical utility in daily store experience. It is not claimed that these notes are all original, but were merely collected from authentic sources, tested, tried and not found wanting.

Suppositories.

I first call your attention to a few hints regarding suppositories. Our pharmacopoeia suggests several methods and several different bases to be used in making suppositories. Of the basis, one the Glycerinated Gelatine is seldom employed in retail practice and hence will not be commented upon. Another, the insoluble soap, forms the base of one suppository only, viz., that of glycerine. Both of these are directed to be made by the hot or molded process. The other base, that of cocoa butter, appears to be the only one universally employed, and approaches more nearly an ideal vehicle for the purpose. The physical constants given for the oil state that it should be brittle at 59 degrees F. and completely liquefied at 86 degrees to 95 degrees F., and it is because of this peculiar characteristic, i. e., the temperature of liquefaction and solidification being within such narrow limits that renders this substance so admirably adapted for the purpose; in fact no other single substance or combination of substances has yet been discovered which possesses so many desirable requirements.

With reference to suppositories made of this substance, two methods are suggested, first; that of mixing intimately the medicinal ingredients with grated cocoa butter and adding sufficient Expressed Oil of Almonds to make a plastic, pliable mass. In our experience, we have had excellent results from the use of Lanolin as well as Petrolatum as an excipient. The second method is known as the hot or molded process and has many decided advantages. Suppositories made in this manner dissolve at a much lower temperature and are therefore much more quickly effective than when made either by hand or by cold compression in the regular way. Another point is this: the repeated heating of cocoa butter causes rancidity within a very short time.

Syrups of U. S. P.

Papers enough to fill a large volume have already appeared on the syrups of the United States Pharmacopoeia. One writer criticises a formula, another finds it faultless; another has difficulty in preserving properly, and still another finds some unlooked for chemical interaction, as in the case of the compound syrup of phosphates, which results in an unsatisfactory product; and then to counteract all these different complaints the chairman of the present Revision Committee comes out boldly and declares the syrups of the Pharmacopoeia to be the most permanent and elegant preparations in the book. "If made according to official directions and kept in proper condition," he says, "they are perfect products." So now you may have your choice of opinions.

Following are some of the precautions to be observed if superior results are expected. Much of the difficulty is in having sugar of inferior quality. The brands known as "Crystal A," or "Confectioners' A," give most excellent results. Though costing a trifle more, the economy is considerable. And finally, the sugar must be free from moisture, made with distilled—not sterilized—water and the container previously sterilized; that's the whole secret. Syrups not thoroughly saturated are also much more liable to fermentation.

Superior Ammonia Liniment.

An ammonia liniment possessing superior advantages to the one now official is made by mixing Sesame oil 75 parts, Ammonia water 25 parts. This preparation can be made instantaneously—is snow white, perfectly homogeneous, does not separate on long standing, and is less irritating than the U. S. P. preparation because less alkali is employed.

Having considerable sale for Fowler solution for veterinarian practice, for a long time we were under the impression that the official formula was faulty, because our finished product was always more or less turbid and never of a clear reddish color. On following the official directions we found that the formula was right and we were in error. The coloring principle in the compound spirit of lavendar is santalin, which is resinous in character. By adding the tincture to the hot solution this is precipitated, causing the trouble referred to.

RADIUM MORE VALUABLE THAN DIAMONDS.

Nothing which exists in such minute quantities as radium has ever before been talked about so much. It was announced the other day that a second gram of the mineral has been produced at the Austrian government laboratory at Joachimsthal. It takes more than four hundred grams to make a pound. After the Curies had discovered radium, the Austrian government sent to them in Paris by a special messenger two milligrams, or two-thousandths of a gram. The mineral is so precious and so rare, and when not properly protected can work such havoc, that none of it has ever been sent through the mails or in any other way than by messenger. It has to be combined with various other chemicals before it can be conveniently used. Each radium preparation that is sent out is incased in a small nickeled brass cartridge about one-third of an inch in diameter. The bottom of the cartridge is filled with lead, a square hole is made in the lead, and the radium preparation is inserted. Then the cartridge is sealed with a mica cap, through which the radium rays may operate. Every cartridge sent out is registered and numbered, and none is sold save to learned men of established reputation or to scientific institutions. Although there is but a small fraction of a pound in existence, a pound at the present prices would bring thirty-six million five hundred thousand dollars.—Youth's Companion.

THUNDER—WHAT IT IS.

It used to be supposed that thunder is caused by the collapse of the atmosphere upon itself in a partial vacuum created by the electric spark of the lightning. This theory has no foundation, according to Dr. Elihu Thomson, an authority on electricity. Doctor Thomson's explanation is that the electric spark heats the atmosphere and causes its sudden expansion. This expansion sets in motion atmospheric or etheric waves that produce sound when they strike the tympanum of the ear. Doctor Thomson says also that the rolling of thunder is not due to reverberation or echoes, but to the length and the erratic course of the lightning spark, causing the sound-waves to reach the ear as a continuous sound of varying intensity.—Exchange.

ALUMNI PIN.

Only graduates are permitted to purchase and entitled to wear this pin. It is distinct and different from a class pin, which can be worn by any member of a class. The pin is made of solid gold with blue enamel. Its style is shown on cover. Your name, year of graduation, and the pin number will appear upon the reverse side. The cost is $6 if delivered, or $6.15 if sent by registered mail. Pins may be obtained upon application to Dr. George C. Diekman, 115 West Sixty-eighth street, New York City.

PATENT MEDICINE RESTRICTION.

Swedish Proposal to Limit Pharmaceutical Trade.

Consul-General Edward D. Winslow writes from Stockholm that the sale of proprietary medicines is to be prohibited in Sweden if certain proposed legislation is enacted into a law. He says:

There has been a strong movement of late years to prevent, by law, the import and sale in Sweden of so-called "patent medicines." The salient features of the proposed legislation may be said, first, to clearly define what is to be construed or admitted as medicine, and the Swedish apothecaries are to be instructed more closely in regard to their duties; second, to put a stop to all "secret medicines." All medicines placed on sale or on the privileged list must have their contents stated on the label, and the prices at which they are sald must not be higher than the prices for the raw materials, which are fixed by the Government.

YOUR TRADE PAPER.

Don't overlook the value of the trade paper. Many dealers subscribe for a paper and then don't get out of it the price of their subscription because they neglect to read it regularly. Of course, they miss many valuable ideas, and thereby do themselves and their business an injustice. When it is considered that the modern trade paper is published in the interest of the trade it represents, that it is edited with the idea of being valuable to the subscriber, and that no first-class trade paper is circulated in any other spirit, it stands to reason that there must be in every issue something of interest.

WHERE SHE STOOD.

The rush hour was nearly over, and yet the subway train was crowded when it reached Astor place. Here entered a saleswoman, who selected a place facing a grouchy man, who was trying to read his evening paper. Clutching the strap she began to sway, at the same time voicing her disapproval of existing conditions.

"It's a shame!" she muttered. "Hopkinson-Smith is right. There is no chivalry in New York. I've been standing on my feet all day, and I've got to stand on my feet all the way home."

The grouchy man shuffled uneasily. "Pardon me for contradicting you, madam," he remarked, "but you happen to be standing on mine now."

And she moved three straps further up.—New York Sun.

BEGINNING OF THE ANTITOXIN SEASON.

Pharmacists who have not already done so will be wise to order now their fall supplies of diphtheria antitoxin. With the opening of the schools and the consequent intermingling of large numbers of children there is always more or less demand for the serum, particularly as the product is used extensively as a prophylactic as well as curative agent. There is an advantage, too, in being early in the field, thus prolonging the antitoxin season, which is ordinarily very profitable. Wisdom, of course, should be exercised in the choice of the brand to be carried. The druggist is in business primarily for profit. He should therefore choose a serum that is commercially staple, that has standing with physicians, that is liberally advertised and detailed to the medical profession. Parke, Davis & Co.'s Antitoxin meets these requirements quite as well, perhaps, as any serum that might be suggested. It is produced in larger quantities than any other, is well exploited in the medical journals, and is doubtless the brand that comes first into the mind of the average American physician when he has occasion to place an order. In this connection it is perhaps pertinent to remind the pharmacist that the Globulins of this company's manufacture are coming into extensive use, and that a few packages might well be included with his order for the regular serum.

The H. K. Mulford Company, Manufacturing Chemists of Philadelphia, announce the opening of their North Pacific Branch House at 307, 309 and 311 Third Avenue, South, Seattle, Washington.

To provide prompt and satisfactory distribution for their patrons in the North Pacific territory, they have established a central branch house 307 to 311 Third Avenue, South, Seattle, Washington.

At the Seattle Branch there will be carried a complete stock of Biologicals embracing Antitoxins, Curative Sera, Bacterins, Tuberculins, Vaccines, and Specialties. In addition thereto, there will be carried a large and complete assortment of standardized and assayed pharmaceutical preparations.

They are the pioneer pharmaceutical manufacturers to establish a Seattle Branch House, which will enable their extending the best possible service to pharmacists in Washington, Oregon and the immediate surrounding country. Customers purchasing from the Seattle Branch will receive the same terms and discounts as though their orders were sent direct to the Philadelphia Office. The Mulford Company extend a discount of 40% on pharmaceuticals to druggists, and also have forms of contracts by which additional savings can be effected to their customers.

THE ALUNNI ASSOCIATION OF THE COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

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NOTICE

Stated meetings of the Association will be held at the College rooms on the second Wednesday of every month, except July, August and September.

Under the auspices of the Association, lectures, upon subjects interesting to the members and students, will be provided during the College session. Dates of such lectures will be posted upon the bulletin boards in the College.

Information relating to Alumni matters will be published in the current numbers of the *Alumni Journal*, Charles A. Lotz, Editor, 135 Water Street, New York City.

VOL. XVII. NOVEMBER, 1910. No. 11.

THE Alumni Journal

Contents

Published Monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of Columbia University.

Columbia University

College of Pharmacy of the City of New York

The Eighty-first Annual Course of Instruction of this College will begin on September 26th, 1910, and continue through the academic year.

The College offers a course of two years, consisting of three days instruction weekly, open to those possessing the Pharmacy Student Certificate of the New York State Education Department, based on fifteen Regents' counts or one year's work in an accredited high school, and leading to the degree of Graduate in Pharmacy.

To graduates of this and of other courses properly qualifying for advanced work, a Graduate Course of one year in the microscopical and chemical analysis of foods and drugs is open.

As a department of Columbia University, the College also offers a course of two years, of four days instruction weekly, open to those presenting the Academic Equivalent Certificate of the State Education Department, based on 60 Regents' counts or four years' work in an accredited high school and leading to the degree of Pharmaceutical Chemist. This course prepares students for admission, without examination, to the College of Physicians and Surgeons.

To graduates of this and other courses of equal grade, our regular Graduate Course of one year is open, leading to the degree of Doctor of Pharmacy.

A Summer Preparatory Course of twelve weeks prepares students in special directions for the regular work of the term.

Those intending to take either course will please communicate with

THOMAS F. MAIN, Secretary,
115-119 West 68th Street, New York City.

... The ...

Alumni Journal

Published monthly in the interest of the Alumni Association of the College of Pharmacy of the City of New York.
Pharmaceutical Department of Columbia University.

PUBLISHED AT 43 FULTON ST., NEW YORK CITY.

CHAS. A. LOTZ, PH.G., EDITOR CURT. P. WIMMER, PHAR.D., ASSOCIATE EDITOR
W. B. SIMPSON, EDITOR COLLEGE NOTES

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REPORT OF DELEGATES TO THE MEETING OF THE NEW YORK STATE PHARMACEUTICAL ASSOCIATION.

TO THE PRESIDENT AND MEMBERS OF THE ALUMNI ASSOCIATION:—

Gentlemen:—

The Delegates of the Association to the Thirty-second annual Meeting of the New York State Pharmaceutical Association, beg to present the following report:

The Thirty-second annual Meeting of the New York State Pharmaceutical Association was held in the City of Saratoga Springs, at the United States Hotel, on June 21, 22, 23, 24, 1910, about Two Hundred Members attending.

The meeting was opened by First Vice-President Arthur S. Evans, the President being unable to be present at the first sitting. The customary addresses of welcome and the responses thereto made by Mr. Willard Lester, Hon. George W. Whitney, Dr. Willis G. Gregory and Mr. William Muench.

The President's address was an able document and was read by Vice-President Evans. The more important topics of interest to

pharmacists were touched upon and particularly he took up the work of the retiring Board of Pharmacy, concerning which he said the following:

"In passing I desire to say a word of commendation for the New York State Board of Pharmacy, which has so ably, efficiently and impartially performed its duties and raised the standard of pharmacy in our State. It is my sincere hope that the new Board, under new conditions, may be equally as progressive and watchful of our united interests and permit us to carry the profession of pharmacy along in the same progressive spirit.

The report of the Legislative Committee dealt chiefly with the matter of Pharmacy legislation, both attempted and accomplished. Many measures of interest and importance had been before the State Legislature and had received the attention of this Committee, the principal measure of course being the newly enacted Pharmacy Law, with the provisions of which I believe the members are by this time entirely familiar.

The report of the Secretary showed a total membership of 1286, an evidence of stability of the State Association, particularly as all members are in good standing.

The report of the Treasurer showed that the Association has on hand the sum of $1,243.07, again an evidence of prosperity.

The Committee on Papers and Queries, through Dr. Willis G. Gregory presented a comprehensive report, accompanied by a number of papers, some of these were of considerable merit, and were referred for printing in the annual report of the proceedings, where such as are interested will have an opportunity to read them.

The Committe on Commercial Interests, through Mr. Clarence O. Bigelow, also presented an elaborate and exhaustive report. Many papers, dealing with the commercial side of Pharmacy formed part of the report, and some of these were read before the meeting, and all of them will be found in the coming issue of the Proceedings.

The Committe on Adulteration, through Dr. Joseph Kahn, its chairman, presented a very interesting report which was very favorably received. His report was supplemented with a great many demonstrations, and in concluding he called attention to the necessity of ridding pharmacy of the predominant commercialism, and the necessity of establishing a higher standard of ethical conduct among pharmacists.

Mr. Thomas J. Keenan, chairman of the Committee on New Remedies, presented a list of 168 recent additions to the materia medica, calling especial attention to the increasing use of serums and organo-therapeutic preparations.

Resolutions, expressing the appreciation of the Association in the matter of assistance rendered in securing the passage of the new Pharmacy Law by Senator Henry W. Hill, Assemblymen George H Whitney and Charles F. Brown, both pharmacists, and Dr. Henry L. Taylor, were unanimously adopted.

Two new Committees were established, as follows: Committee on Scholarships, and Committee on Pharmacopoeia.

A feature of the meeting was the attendance of a delegation of the National Pharmaceutical Society, among whose number were about a dozen of our members. This delegation took up the matter of working hours for employees as enumerated in the new Pharmacy Law. The number of working hours, having in some unaccountable manner been increased in the new law, the delegation voiced its protest and succeeded in having a resolution passed, in which the State Association pledged itself to take steps with a view of remedy ing the existing condition at the coming session of the State Legislature.

One of the principal features of the meeting was the selection of the names of 25 Pharmacists, a list of which is to be submitted to the regents. From this list nine names were to be selected for the purpose of constituting the new Pharmacy Board. The regents, however, having the right to select others than those whose names appeared upon this list. Much interest was shown in the selection. Among the number selected were 6 graduates of our college, and the names of three others also connected with out institution appear among the number selected.

About eighty new members were elected at this meeting, thus adding this number to the total membership.

The entertainments offered to members and friends were numerous and proved very enjoyable affairs: Much credit is due to the Travellers Auxiliary for their part in the Entertainment Programme. In fact this body has for many years past provided a high class entertainment at the annual meetings of the Association.

No entertainment programme would be complete without a base-ball game. On this occasion, a game noted for its many brilliant plays was a feature. The game was between picked teams of the

Association and the Travellers Auxiliary, and resulted in a score of 25 to 18, in favor of the "Pestle Wielders."

In anticipation of a strenuous time at the game, a Hospital Corps was established, the members of which were kept busy taking care of the crippled and injured players of both teams.

It is only fair and proper to say that the greater number of new members were secured by the efforts of the Travellers Auxiliary. This body did such good work in this connectoin that the committee on membership of the Association suggested that the Travellers Auxiliary be made a permanent Committee on Membership.

Many interesting and instructive exhibits formed a part of the meeting. The exhibits in each case were attended by a representative of the firm making same, who saw to it that all interested obtained any desired information.

The new officers of the Association are as follows:

President, Arthur S. Evans, of Utica, N. Y. C. P. /97.

First Vice-President, Chas. B. Sears, of Auburn, N. Y. C. P. /88.

Second Vice-President, L. J. Schlesinger, of Yonkers.

Third Vice-President, Chas. F. Fish, of Saratoga Springs.

Secretary, Edward S. Dawson, of Syracuse.

Treasurer, Frank Richardson, of Cambridge.

Executive Committee:

Peter Diamond of New York City.

Alfred M. Palmer of Olean.

John J. Healy of Troy.

The next meeting of the Association will be held in June, 1911, at Alexandria Bay, Thousand Islands, New York.

Respectfully submitted,

GEO. C. DICKMAN,
Chairman of Delegates.

ALUMNI PIN.

Only graduates are permitted to purchase and entitled to wear this pin. It is distinct and different from a class pin, which can be worn by any member of a class. The pin is made of solid gold with blue enamel. Its style is shown on cover. Your name, year of graduation, and the pin number will appear upon the reverse side. The cost is $6 if delivered, or $6.15 if sent by registered mail. Pins may be obtained upon application to Dr. George C. Diekman, 115 West Sixty-eighth street, New York City.

KARL WILHELM SCHEELE, THE PHARMACIST.

With much interest did I read the excellent biography of "Scheele, the Chemist,"* by Victor Robinson. The study of pharmaceutical, chemical and medical history is a most interesting one, but, unfortunately, is sadly neglected. Let us hope that the time is not far distant when these studies will be included in the curriculum of the colleges, and then, and not until then, in my opinion, will we plant the seed in the student which will germinate into that great necessity, i. e., the love of his profession.

Permit me, however, to take one important exception to the excellent paper, "Scheele, the Chemist," that is, Scheele should *not* be classed as a *chemist,* but as a pharmacist or better, as an apothecary Pharmacy rightly claims Karl Wilhelm Scheele as belonging to its ranks, because he has made all his great discoveries as an humble apothecary.

Beginning with the preparation of phosphorus from bone and the isolation of tartaric acid from cream of tartar in 1769, at the age of only 27 years, to the important discovery of the "sweet principle of oils," the glycerin of to-day, and also the discovery of hydrocyanic acid, both in 1783, of citric acid and the "acid of sugar," the present oxalic acid in 1784, of malic acid in 1785 and of gallic acid in 1786, the year of his early death, the discoveries of Scheele consisted principally of pharmaceutical products and were epoch making events in pharmacy.

The name of Scheele is furthermore intimately associated with manganese and barium, with arsenic, tungsten and molybdenium and combinations; with calomel, prussian blue and plumbago, with benzoic, lactic, phosphoric and uric acids, with ether and acetic ether and even with our modern sterilization, having applied this method for the successful preservation of vinegar as early as 1782 and recommending its application for pharmaceutical purposes.

Mother Pharmaciae is also justly proud of her son, because, unlike others, i. e., Liebig, he did not desert her. He refused lucrative offers from England and kept on experimenting in his obscure apothecary shop at Koeping, on the western shore of Lake Maelar, where he died, only 42 years old, as a pharmacist.

Unlike the modern chemist, Scheele was without any apparatus and he was compelled to construct same himself, wherein his phar-

*April, 1910, Alumni Journal.

maceutical knowledge and skill greatly aided him. How crude and scanty the chemical apparatus of Karl Wilhelm Scheele, the pharmacist, was, is well illustrated by the German pharmaceutical historian Herman Schelenz in his Geschichte der Pharmazie (History of Pharmacy), who devotes three pages to his biography and states that for want of apparatus Scheele was compelled to collect the generated gases in pig or beef bladders. Just think of it!

And nevertheless Scheele, the apothecary, was the discoverer of such important gases as hydrofluoric and hydrofluorsilicic acid (1771), oxygen (1772), chlorine (1774), hydrogen sulphide (1771) and hydrocyanic acid (1783).

Scheele is claimed by two countries. He is a son of Sweden because the German city Stralsund, his birthplace, was a Swedish possession at that time. He is also claimed by Germany, as all of Scheele's papers were written in his native tongue, in German, and were translated by the Stockholm Academy of Sciences into Swedish in order to be included in the Transactions.

And just as two countries claim Scheele as their own, so do two professions, chemistry and pharmacy, pronounce him as their son. But as he made all his great discoveries in an apothecary shop, and as he furthermore died as a pharmacist, therefore Karl Wilhelm Scheele can be justly classed as an apothecary and pharmacy can with great pride point him out as one of the beacon lights in the profession, with the celebrated motto: "It is the truth alone that we desire to know, and what joy there is in discovering it!"

Otto Raubenheimer, Ph. G.

Brooklyn, N. Y.

EXPERIMENTS WITH COAL DUST.

Much interest is felt in England in the recent experiments at Altofts colliery on the explosibility of coal dust. It appears to have been demonstrated that air charged with fine coal dust may be dangerously inflammable, comparing in destructive effect with explosions of fire-damp. In one experiment a small cannon was fired electrically in the mine to raise the dust, and then a larger cannon was fired to ignite it. The resulting explosion is described as terrific. It has also been demonstrated that stone dust spread upon the floor of the mine tends powerfully to arrest, or limit, the explosion of the coal dust.—Exchange.

ALUMNI DINNER.

The Annual Dinner of the Alumni Association will be held in Healy's Jungle Room, 66th St. and Columbus Ave., Wednesday evening, December 7th, 1910, at 8.30 P. M. Dr. H. M. Wiley, the Government Pure Food Expert will be the guest of honor on this occasion. It is hoped that a large number of members and friends will be present. The Arrangement Committee is just putting the finishing touches to the affair, and a very enjoyable time is assured. Healy's Dinners speak for themselves and the music and entertainers are likewise first class.

HEALY'S 66TH ST. AND COLUMBUS AVE.,
JUNGLE ROOM.
DECEMBER 7TH, 1910,
8:30 P. M.
DRESS SUITS ARE NOT REQUIRED, THIS IS AN INFORMAL AFFAIR.

CLASS NOTES.

Dr. Joseph F. Armstrong, class '05, for the past 4 years chemist for the Mutual Milk and Cream Co. of N. Y. City, has distinguished himself in a sphere apart from the college studies. He has just invented and patented a collapsible umbrella which can by a few simple movements be reduced to a size enabling the owner to place it in his coat pocket.

This ingenious mechanical device has been endorsed by one of the leading umbrella manufacturers of the United States, as an unqualified practical success. Dr. Armstrong's invention will probably be placed upon the market at an early date by a corporation especially organized for its exploitation.

The class of '88, the celebrated "blizzard class" is noted for the prominent members it has produced. Diekman, Sears and Tuthill have served on the New York State Board of Pharmacy. According to the new pharmacy law the Regents of the University of the State of New York are empowered to appoint the nine members of the State Board of Pharmacy Examiners, four of which to reside in New York City. At their recent meeting held at the State Education Department, in the capitol, Albany, N. Y. Sep. 22, 1910, Prof. Geo. C. Diekman of our college and Otto Raubenheimer of Brooklyn, two members of the "blizzard class" were appointed as members of the new State Board of Pharmacy Examiners. The other two men from New

York City are also members of the College, namely Clarence O. Bigelow and J. L. Lascoff.

Dr. Dieckman has also been elected as the first President of the new Board of Pharmacy.

We have received a letter from John A. Steffens, Phar. D. '10, who is with the Ponce Sanitary Milk Co., Ponce, P. R. He writes that he is getting along very nicely and expects to be made superintendent of the plant very soon. He certainly has been successful since he joined the ranks of the profession.

It is with great pleasure that we hear of the recovery of our old friend and alumnus, Wm. H. Ebbetts, who has been very ill for a long time. Any of the boys who would like to call on him will be welcome; his address is 137 Manhattan Avenue, New York.

EXECUTIVE BOARD MEETING.

A meeting of the Executive Board of the Alumni Association was held at the College of Pharmacy on Wednesday evening, October 26th. 1910. The minutes of the preceding Executive Board meeting and also those of the last regular Alumni meeting were read and approved.

The committee appointed by the president at the last meeting for the purpose of devising ways and means for establishing a scholarship fund, made a report recommending that such a scholarship be established and that a new committee of ten members of the association be appointed by the President, to devise ways and means of providing funds. The scholarship is to be known as the Alumni Scholarship, and is for the purpose of assisting worthy students.

Dr. Leslie presented on behalf of the Food and Drug Class of 1909, a group picture of that class which was accepted and the Secretary instructed to thank the donors.

Orders were given to frame and hang this picture as well as the picture of the class of 1910, which was presented to the Alumni Association at the last regular meeting.

Mr. Lotz, the Editor of the Journal, stated that he had a picture of the Class of 1910, which he would be glad to dispose of to any member of the class of 1910, who did not already possess one, and left the matter of disposal in the hands of the Secretary, Dr. C. P. Wimmer. Any member of the Class of 1910, not having a class picture can secure this one by applying to Dr. Wimmer.

The meeting then adjourned.

ALUMNI ASSOCIATION MEETING.

Minutes of the Stated Meeting of the Alumni Association of the College of Pharmacy of the City of New York, held Wednesday, October 12th, 1910, at 8:15 p. m.

President Geisler in the Chair.

Present: Messrs. J. G. Ahrens, 1905, F. A. Boettcher, 1909, H. N. Butler, 1904, George C. Diekman, 1888, A. Henning, 1876, S. Glaseroff, 1910, Wm. A. Hoburg, Jr., 1893, L. E. Kantor, 1910, George Kobrick, 1906, William Pruss, 1904, H. Schlesinger, 1910, H. Vogel, 1910, Jos. Weinstein, 1906 and C. P. Wimmer, 1902.

The minutes of the last stated metting were approved as read.

The Treasurer's report was read and approved, and ordered spread on the minutes.

Entertainment Committee: Mr. Pruss reported that a lecture would be given by Dr. E. R. Larned, on the evening of Wednesday, October 19, 1910, at the College of Pharmacy, on "Vaccines, Toxins and the Prevention of Small Pox." He expressed the hope that a large number of friends be present.

Ball Hall Committee: Progress.

Hanging Committee: Progress.

Alumni Certificate Committee: Progress.

Delegates to the New York State Pharmaceutical Association: Dr. Diekman read a very extensive report, which was received with thanks and ordered spread on the minutes.

Registrar: In the absence of Dr. Leslie, a report was not made.

Unfinished Business: It was reported that the chairs in the Alumni Room had been repaired.

New Business: It was reported that the Class of 1910 had presented the Alumni Association with a class picture. The picture was turned over to the Hanging Committee for framing and hanging.

Dr. Diekman proposed that a scholarship be established, to be known as the Alumni Association Scholarship and to be offered through the medium of the New York State Pharmaceutical Association. He moved that a committee of three be appointed, with a view of determining the advisability of such scholarship, and deciding ways and means of collecting the necessary funds. The motion was seconded and carried. President Geisler appointed the following committee: Dr. Diekman, Dr. Weinstein and Wm. A. Hoburg, Jr.

It was moved, seconded and carried that the Association hold the

usual annual dinner and that a committee be appointed to take the matter in hand.

New Members: The following graduates were, upon ballot, duly elected members:

Charles C. Becker, 1910 Fall,
Julius M. Breitenbach, 1910 Fall,
Lyn H. Buck, 1910,
Abraham F. Goldberg, 1910 Fall.

There being no further business, it was moved, seconded and carried to adjourn.

CURT P. WIMMER,
Secretary.

COLLEGE NOTES.

The College Class has held its elections with the following results:

The Senior Class officers for the year are as follows:

President: W. E. WARNER,
Vice-President: FRANK BRANNIGAN.
Secretary: LEON MONELL.
Treasurer: D. S. TREAT;

by the Junior Class the following officers were elected:

President: H. C. ELKINS,
Vice-President: GEORGE HENRIQUEZ,
Secretary: MISS FAY BLOOM.
Treasurer: C. BARRETT.

The Junior Class has appointed a Pin Committee, which has selected what is generally conceded to be one of the prettiest pins that has been worn in the college.

A meeting was also held of the Athletic Association, and Mr. W. E. Warner was elected President to succeed himself. The basket-ball team is now organizing and gives promise of a successful season. The President of the Athletic Association reports that he has already received a challenge for the annual base-ball game with the Philadelphia College of Pharmacy. Although we were defeated last year, the boys feel sure that this time the tables will be turned.

At the meeting of the Board of Trustees held on the first of November, a check for $2,500 from the estate of Robert W. Johnson was received. This is the first time in the history of the College

that the institution has been named a beneficiary in anyone's will. This money will be deposited in a savings bank under a fund known as "The Inheritance Fund of the College of Pharmacy of the City of New York," and it is hoped that when it becomes time for each alumnus to make his will he will not forget to leave something to his Alma Mater. Every friend of the college is looking forward to the day when the mortgage on the property can be paid off.

The following students who successfully passed their final examinations in September have received the degree of Graduate in Pharmacy and their diplomas are now ready for them at the college.

Lyn Berbert, Charles C. Becker, Julius M. Breitenbach, J. J. Depuy, A. I. Goldberg, Leslie W. Howard, Selim I. Katibah, Benjamin Schwald, Otto Schroder.

Men from last year's graduating class are daily dropping in to pay their friends a visit.

Mr. Lynn H. Buck has had a very successful summer in Larchmont and has just returned to his home in Gouverneur, N. Y., where he will likely go into business.

We have heard that Leslie W. Howard, who receives his diploma this fall has been taken into partnership by his father in West Lebanon, N. H.

Ernest E. Kipp was at the college a day or so ago. He has gone to work with Mr. Fielding in Newark. We have also had pleasant visits from Messrs. McCrum, Sidransky, Bensen, Wise and Lawson.

CONVENIENT PREPARATION OF SODIUM HYPOBROMITE.

To obviate the inconveniences attending the use of this reagent as usually made, Job and Clarens (Pharm. Journ., No. 2401, p. 507) suggest the use of sodium hypochlorite and potassium bromide. The latter, treated by the former, is very rapidly converted into hypobromide, so that Javelle water added to potassium bromide reacts on urea exactly in the same way as the liquid prepared with sodium hydroxide and bromine. Javelle water is very stable under proper conditions, while the solution of potassium bromide may be kept indefinitely. The quantities recommended are 1 Gm. of potassium bromide for 20 Cc. Javelle water. The two are mixed five minutes before the estimation.

OBITUARY.

C. S. N. HALLBERG, Ph. G., M. D.

Carl Svante Nicanor Hallberg died in Chicago, on Saturday, October 22nd 1910, at the age of 54, leaving a widow and one son.

The death of Professor Hallberg, while not entirely unexpected, nevertheless came as a shock to his friends and associates, as just prior to his death some hope of his recovery was entertained.

Professor Hallberg was born in Helsingborg, Sweden, on October 13th 1856. He came to the United States in 1869.

He received his early education in Sweden, and supplemented this by work at the Philadelphia College of Pharmacy, from which institution he graduated in 1876, with honor.

He received his medical degree at Harvey Medical College in 1893. Since that time he occupied the chair of Pharmacy at the Chicago College of Pharmacy, which now forms part of the University of Illinois.

He was a member of the National Formulary Committee and of the Revision Committee of the Pharmacopoeia.

In the death of Professor Hallberg, American Pharmacy loses one of her most able exponents.

Through special arrangement with the officers of the American Pharmaceutical Association, Professor Hallberg was buried in the Ebert lot– a very fitting resting place for him, considering the friendship that had existed between Mr. Ebert and himself, and the greatness of both men in their chosen profession.

Peace to his ashes.

John Helmicke of the class of 1900, in business in Tuckahoe, N. Y. died recently of pneumonia. More detail in next issue.

Peace to his ashes.

ICHTHYNAT.

ICHTHYNAT (Ammonium Sulphoichthynat) is a new preparation being exploited and introduced by the Mallinckrodt Chemical Works.

According to Prof. Von Hayek, whose investigations were published in the Wiener Klinische Rundschau, 1907, the fundamental substance from which Ichthynat is manufactured is identical with that from which the preparation Ichthyol is made, viz a bituminous shale found in great abundance in the Karwendel Mountains in North Tyrol. Prof. Blaas, Director of the Geological Institute at Innsburck, Germany, expresses it as his opinion that the two geological form ationsare completely identical in their nature.

The Mallinckrodt Chemical Works wishes to make it clear that Ichthynat is not offered as a substitute for Ichthyol, but rather as its equivalent as a therapeutic agent, and on account of the lower price at which it is available, it is safe to say that it will come into more general use than has heretofore been possible.

Pharmacists should call the attention of their local physicians to this valuable introduction and order a quantity for their dispensing department, so that they will be able to fill prescriptions for it.

Christmas Number

VOL. XVII December, 1910 No. 12

The Alumni Journal

Published monthly by the Alumni Association of the College of Pharmacy of the City of New York—Pharmaceutical Department of COLUMBIA UNIVERSITY.

EDITED BY
CHAS. A. LOTZ, Ph. G. CURT. P. WIMMER, Phar. D.

CONTENTS

Columbia University

College of Pharmacy of the City of New York

The Eighty-first Annual Course of Instruction of this College will begin on September 26th, 1910, and continue through the academic year.

The College offers a course of two years, consisting of three days instruction weekly, open to those possessing the Pharmacy Student Certificate of the New York State Education Department, based on fifteen Regents' counts or one year's work in an accredited high school, and leading to the degree of Graduate in Pharmacy.

To graduates of this and of other courses properly qualifying for advanced work, a Graduate Course of one year in the microscopical and chemical analysis of foods and drugs is open.

As a department of Columbia University, the College also offers a course of two years, of four days instruction weekly, open to those presenting the Academic Equivalent Certificate of the State Education Department, based on 60 Regents' counts or four years' work in an accredited high school and leading to the degree of Pharmaceutical Chemist. This course prepares students for admission, without examination, to the College of Physicians and Surgeons.

To graduates of this and other courses of equal grade, our regular Graduate Course of one year is open, leading to the degree of Doctor of Pharmacy.

A Summer Preparatory Course of twelve weeks prepares students in special directions for the regular work of the term.

Those intending to take either course will please communicate with

THOMAS F. MAIN, Secretary,
115-119 West 68th Street, New York City.

... The ...

Alumni Journal

Published monthly in the interest of the Alumni Association of the College of Pharmacy of the City of New York.
Pharmaceutical Department of Columbia University.

PUBLISHED AT 43 FULTON ST., NEW YORK CITY.

CHAS. A. LOTZ, PH.G., EDITOR CURT. P. WIMMER, PHAR D., ASSOCIATE EDITOR
W. B. SIMPSON, EDITOR COLLEGE NOTES

Vol. XVII. DECEMBER, 1910. No. 12.

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EDITORIAL.

With this issue the Alumni Journal winds up another year, the fifth under the present Editorship, and we wish to take this opportunity to thank the many friends and associates who have assisted us in maintaining the Journal.

You will all agree, that it is no easy task to publish our Journal successfully. There are many obstacles which must be overcome, and, most important, the financial needs must be met.

For such part we take this opportunity of thanking our advertisers, who have continued to patronize our columns, some during the entire period of five years, others for shorter periods.

The readers of the Journal should not fail to interest themselves in these advertisements and patronize those who so generously contribute to the support of the Journal.

In conclusion, the Alumni Association, through its Journal, extends to all its best wishes for a Merry Christmas and a prosperous New Year.

COLLEGE NOTES.

On Wednesday, November 30th, Professor Chandler lectured to the senior class. Professor Chandler was enthusiastically applauded on his arrival and at the close of the lecture by the class and the many others present.

Dr. Coblentz announced that Dr. Isakovics will give a series of lectures on synthetic perfumes and essences at the college in February or March.

Dr. Arthur H. Elliott, for many years our Professor of Chemistry, will also lecture to the senior class this term.

J. Cassidy, Jr., '11, has left for his home in Canada to recover from a severe cold. Cassidy played on the University Hockey Team last year and was just about to answer the call for practice when he was taken ill. This will undoubtedly keep him from the ice for the season.

Miss Estrada, Phar. D., '09, is doing special work in the chemical laboratory on fertilizers and sugars.

Charles A. McBride, Phar. D., '10, is in a responsible position in the chemical laboratory of Johnson & Johnson.

St. George, Hansen and Kuhlmann, '10, are all at the College of Physicians and Surgeons.

G. Noble, '11, and F. Doolittle, '11, reported a great trip to Birghamton, Ala., to the Kappa Psi Convention.

Professor Diekman introduced Mr. Warren L. Bradt, Secretary of the New York State Board of Pharmacy, to the junior class recently.

An incident which caused great amusement to the class being quizzed by Dr. B. on the day before Thanksgiving took place a few minutes before the close of the hour. One of the seniors was puzzled by a question he had to answer. Dr. B. encouragingly said, "Take your time and think it out; don't let anything divert your thoughts." At that moment the door opened and a little butcher boy with a big apron and a heavy turkey appeared. "Got a turk for Mr. W." The question is still unanswered.

"Well, I realize I am growing old," said Dean Rusby at the college recently. "I noticed a junior student in the front row who never took any notes when I lectured. I asked him after the hour why it was and he very innocently replied, "I have my father's."

Electricity for lighting purposes is being installed on the pharmacognosy floor in place of gas. We hope that before many years the entire building will be lighted in this manner.

The Phi Delta Chi Fraternity held an informal Smoker on Wednesday evening, October 9th. A large number of the Faculty attended and joined in the fun with the "boys." Everyone had a "corking" time.

The college is truly a cosmopolitan one. We have had students from nearly all the countries of Europe, China and Japan, South America, Cuba, Panama and Porto Rico, and now comes an applicant for admission to the next session who is an East Indian and a graduate of a University in India. This year we have had an exceptional number of men who claim Italy as their mother country and we are informed that in spite of the handicap under which many of them labor in the way of unfamiliarity with the English language, they are excellent students and some of them are headed towards the honor roll.

We are also very strong in the Co-ed. line this year, having at present twelve of the fair sex gracing our halls and class rooms.

LeRoy Braswell, '02, has a rapidly growing business in the City of Churches, and he figures that a new registered clerk will be needed in a year or two. Mrs. LeRoy Braswell is a member of the class of 1912. We wish all our graduates who are benedicts would send their better halves to take the course.

F. J. Labriner, Class 1904, has recently returned from a trip abroad with his mother. He is studying medicine at Cornell and also has a pharmacy at 94 Avenue A, New York City, where he *would be pleased to receive* his friends.

James Wallace Wise, Jr., '10, manager of Riker's Store in the P. R. R. Station, was married in Dover, Del., on November 23rd to Miss Mary Bratt Smith of Dover. Al. Lawson and T. Roediger '10 went down to see Jim through and acted as ushers. Hughett McDaniell '12 was also present, and his brother Joseph was best man. The honeymoon was unfortunately cut short by the opening of the Pennsylvania tunnel, which made it necessary for the groom to get back on the job. Our congratulations to Mr. and Mrs. Wise!

ALUMNI ASSOCIATION MEETING.

Minutes of the Stated Meeting of the Alumni Association, held Wednesday, November 9th, 1910, at 8:15 P. M.

President Geisler in the Chair.

Present—Messrs. A. J. Bauer '04, V. Calcagno '02, Geo. C. Diekman '88, E. Freedman '10, Geo. Hohman '08, M. L. Huck '10, N. S. Kirk '94, F. A. Leslie '04, Chas. A. Lotz '00, Ewen McIntyre '49, Wm. Pruss '04, H. Schlesinger '10, L. Splescia '10, L. Tropani '10, S. Tow '09, J. W. Wise '10 and C. P. Wimmer '02.

The minutes of the last stated meeting of the Executive Board were read and approved, and the minutes of the last stated meeting of the Association were read for information.

The Treasurer's Report was approved as read and ordered spread on the minutes.

Ball Hall Committee: Dr. Wimmer reported that a suitable hall had been found, namely, Eldorado Hall, at 52nd St. near Broadway. It was moved, seconded and carried that the Alumni Association hold the Annual Ball at Eldorado Hall on the evening of Wednesday, February 1, 1911.

Dinner Committee: Dr. Leslie reported that the Dinner would be held at Healy's on Wednesday, December 7th, 1910, at 8:30 P. M. He expressed the hope of having many of the members present.

Entertainment Committee: Mr. Pruss reported that a lecture by Dr. Larned had been given on Wednesday, October 19th, 1910, also that arrangements were being made for a lecture to be given during January. The Secretary was ordered to send a letter of thanks to Dr. Larned.

Alumni Certificate Committee: Progress.

Registrar: Dr. Leslie reported the deaths of

John Helmecke, 1900,

Frank P. Hoffmann, 1907.

A rising vote was ordered in respect to these deceased members.

Correspondence: A letter from Mr. Charles A. Lotz was read, in which he offered to publish the Alumni Journal for the year 1911 under the same conditions as heretofore.

It was moved, seconded and carried to continue Mr. Lotz as editor of the Journal for the year 1911.

New Business: Dr. Diekman requested that an index for the journal be published. Mr. Lotz promised to do so within reasonable time.

Dr. Wimmer reported that Mr. Ebbitt, one of the active members of the Association, had been very ill and was now on the road to recovery. It was moved, seconded and carried that a committee consisting of the President and Honorary President visit Mr. Ebbitt to wish him speedy recovery. Many other members also signified their intention of visiting Mr. Ebbitt.

There being no further business, it was moved, seconded and carried to adjourn.

CURT P. WIMMER,
Secretary.

TERPIN HYDRATE—A PERFECT SOLUTION AND SATISFACTORY PREPARATION OF SAME.

FRANK W. A. HAIN, NEWARK, N. J.

The first request for a solution of terpin hydrate to be given in mixtures, etc., came to me about ten years ago, when a physician desired information on the solubility of same.

An emulsion, containing two grains to the fluiddrachm, was about the most satisfactory mixture we could obtain at that time. However, it set me experimenting with terpin hydrate, and finally resulted in the following formula:

SOLUTION TERPIN, HYDRAT, COMPOS.

Terpin hydrate powd	30 Gm.
Hot glycerin	650 Cc.

Stir until dissolved. When partly cooled add:

Fluidextract wild cherry bark	62.5 Cc.
Alcohol	235 Cc.
Glycerine	ad. 1,000 Cc.

Dose.—4 Cc. containing 0.12 Gm. (about 2 grs.) terpin hydrate to be taken with water. To meet climatic conditions I found it advisable, however, to reduce the amount of terpin hydrate to 25 Gm. per 1,000 Cc., the resulting preparation containing .1 (about 1½ grs.) per 4 Cc. of terp. hydr. in perfect solution.

Codeine or heroin in the usual amounts are readily dissolved in the alcohol before adding to the mixture.

The Pharmacopoeia mentions the solubility of terp. hydr. in water (hot and cold), alcohol (hot and cold), ether, chloroform, and glacial acetic acid. Why not add the solubility in glycerin and practical application of same?

LECTURE, JANUARY 11th, 1911.

The Entertainment Committee wishes to announce, that special arrangements have been made to give a lecture in the Lecture Hall of the College of Pharmacy on January 11th, 1911, at 8.30 P. M. The lecture will be delivered by C. E. Vanderkleed, B. Sc. A. C. Phar. D., chief chemist of H. K. Mulford & Co., and also Professor of Pharmaceutical Chemistry at the Medico-Chirurgical College of Philadelphia

As the lecturer is coming on from Philadelphia it is especially desired that every one who possibly can, should be present.

SYRUP OF WILD CHERRY.

By H. A. B. Dunning.

Syrup of wild cherry prepared in accordance with the formula appearing in the Pharmacopoeia, 1890 revision, produces a preparation essentially superior to the product obtained if 1900 revision formula be used.

I make use of the term essentially in this connection because I believe syrup of wild cherry should be regarded as a very desirable vehicle or solvent for certain drugs and chemicals to allay coughing and that therapeutically the syrup is of little value.

As a vehicle the 1890 preparation is superior because, due to the different mode of preparation, it is a beautiful wine-red solution, while in strong contrast the 1900 preparation is a sickly reddish-brown tinged with yellow. Furthermore, the 1890 preparation is more highly flavored, both as to odor and taste. It keeps quite as well as the 1900 preparation, and may be criticised only as regards the greater percentage of extractive matter, particularly of tannin character held in solution. It seems to me that there can be no great objection to the presence of tannin in the syrup because it is rarely used in combination with anything which is incompatible with it.

I therefore most earnestly suggest to the Pharmacopoeia Committee that they consider the advisability in the next revision of substituting the 1890 formula for the 1900 without change, except perhaps that the moistened wild cherry be macerated the required time loosely packed in a suitable percolator in which it is subsequently packed without removal.

THE PRACTICAL SIDE OF A PROFESSIONAL PHARMACIST.

By J. Leon Lascoff, of the New York State Board of Pharmacy.

A great deal has been said at pharmaceutical meetings, and in pharmaceutical periodicals concerning the elevation of pharmacy as a profession, all tending to raise the standard on a par with other professions.

However, most of what has been said, or at least the greater part of it, has seemed to me to be problematical, or rather speculative, and that because the remedy suggested was of such nature it would be almost impossible to accomplish the desired results under existing conditions.

My personal experience in this and foreign countries has taught me that there is a *royal road* to the success of modern pharmacy as a profession, if members will bear in mind some or all the factors which I have attempted to outline for their consideration and approval.

In every civilized country of the world other than our own, a distinction is made between the mercantile druggist and the professional pharmacist. I have pointed out this fact before, in another article. Custom, however, has decreed our position and we are to-day encumbered because we confine our efforts in the direction of one goal, namely, "money-making," and are practicing our art in a "store."

Now, inasmuch as we must live up to custom, and incidentally to the expense incurred in conducting our businesses, the remedy—I say the following with a marked degree of positiveness—lies in the *"divorcing"* or separating of our stores from our dispensing departments, not merely by putting up a counter or ground glass partition, but by having an entirely separate and distinct room in which there shall be, not only the necessary paraphernalia, such as scales, graduates, mortars, spatulas, etc., but a full line of the necessaries in every day use for compounding drugs, chemicals, tinctures, syrups, etc. The store should be divided in such a way that the prescription department would occupy the major part, the front being used for mercantile purposes only, and containing the soda fountain, and the departments for sundries, proprietaries, etc.

The prescription department should be an entirely separate feature and by itself, where strict silence and secrecy can be observed for the proper checking of prescriptions so as to avoid errors and complaints, and where we can properly fulfill the extreme responsibility thrust upon us and safe-guard ourselves against erroneous dispensing.

Remembering that human life is at stake, accuracy is our salvation. Prescriptions should never be dispensed in such a way that the laity can see how the work is done. If a customer sees you measure off liquid in a graduate, he may become nervous by thinking that perhaps you may make an error and give him a drop too much, thereby poisoning him, his wife, or his child.

Employ competent help. It will cost a little more, but it is cheaper in the end.

Now, a word regarding some of the "stumbling blocks" that we meet in our practice. Now and then a "stickler" shows up in the form of a peculiar mixture, pill, capsule or ointment prescribed by the doctors, which, if not properly put up will be undesirable. Either the mixture will be bad looking, too bulky, not uniform, or gritty, lumpy, etc., as in ointments, though you have followed the order and used the correct ingredients. There is a great deal of tact to be used in handling some of these cases. We should never consider the waste of a little material if it is necessary to bring about a good result, or to discard a poorly made prescription or experiment in various ways to attain the desired end. Neatness in the general appearance of the ointment, capsule or mixture counts for a good deal, and the credit one can get for attaining this end helps to build up our general reputation and incidently our trade by gaining for us the confidence of the physician. Never let it be said by your brother pharmacist that he can make up a certain prescription which you have already dispensed and sold better than you can.

I might illustrate hundreds of prescriptions which come to my notice, but the following examples will suffice to show what may be achieved by using care and with very little expense:

(1)

Codeine	0.6
Tincture of benzoin compound	30.0
Syrup	90.0
Water	180.00

M. Sig. As directed.

By dispensing this prescription in the way it is written, the benzoin will separate and stick to the bottom of the bottle, but, by adding one dram of powdered acacia, the mixture will become uniform and elegant in appearance.

(2)

Sodium bromide 4.0
Magnesia usta 0.8
Validol 4.00
M. Div. in capsules, No. XII.

To put this up in capsule form the way the prescription is written is absolutely impossible, except a mass be made, and if this be done the capsules will be of an enormous size; by adding 10 grains more of magnesia usta, however, the combination will form a nice dry powder and you can dispense it dry in No. 1 capsules, which will have a white and elegant appearance.

(3)

Oil of theobroma 12.0
Oil of sweet almond 15.00
Sulphur, precipitated 3.0
Resorcin 1.5
Oil of rose ..... 4 drops

The best way to dispense this prescription is to melt the oil of theobroma and the almond oil, then dissolve the resorcin in a few drops of water and rub it up thoroughly with the sulphur; then rub the rest of the ingredients on a slab, little by little, with the melted cocoa butter, until the mixture forms a smooth and perfect ointment.

(4)

Balsam of Peru
Ointment of zinc oxide, of each 15.0
Make an ointment.

This prescription looks very simple, but you will be surprised when you rub the two ingredients together to find that they will form a gritty hard ointment which is absolutely impossible to apply to any sore. After long experience I found that a few grains of powdered acacia added to the balsam of Peru and mixed with the zinc ointment will form a nice smooth soft ointment.

The prescriptions I have given above were dispensed in different stores in different ways, but after a little experimenting I think I have succeeded in doing them up in the most satisfactory way. Now a little code of "Ethics" which will do no harm and always does good to observe.

1—Always show a friendly and professional spirit to all physicians with whom you come in contact.

2—Always treat your competitor fairly and squarely.

3—Never criticise a prescription to the patient.

4—Never discuss with your customers the relative merits of a physician as shown by his prescription, even when they ask you to do so.

5—Never make a diagnosis—always leave that to one who should know—the doctor.

6—Never practice substitution.

7—Never practice medicine or surgery.

8—Never practice gossip.

9—Never practice knocking your competitor.

10—Never practice emmenology.

These observations may serve us all as the "Decalogue of Pharmacy."

To elevate the profession it is worth while to mention some good rules which, if observed, are of great importance to the professional pharmacist:

1—Never have any kind of window display other than that which relates to your own profession. Do not specialize with patent or unethical nostrums.

2—Use neat bottles, boxes and labels. Make neat packages.

3—Write labels distinctly and in full as per signature. Do not abbreviate.

4—Make notes of the size and weight of masses in pills and capsules on prescriptions, so that if repeated they will correspond with those originally dispensed.

5—Always keep the latest ethical remedies in stock and request the manufacturer to send notices to doctors informing them of this fact. This is good advertising and is strictly ethical; at the same time it shows your are abreast of scientific advancement.

6—Buy only the best drugs and chemicals from reputable houses and the physicians will obtain the desired result. Any preparation you manufacture should always comply with the standard of the U. S. P. and N. F. (our Holy Bible).

By complying with all of the above-mentioned rules, physicians and the public in general will have more confidence in you. This may not all appeal to all our members, but a little reflection on their part may awaken them to a realization of the vast importance of this feature.

Many I know will say, "What's the use? we have been able to get along so many years in the old way, why change it now?" And, gentlemen, there is where lies the danger. The warning note has been sounded, competition with the cut-rate stores is now so keen that we must find a remedy. Let the proprietors of such stores thrive on cut-rate prices and miscellaneous goods. You cannot do it. Let them spend money on advertising and displays, you cannot. Let them have candy and other specialties, you cannot do it. Let them carry an enormous stock of everything for the household, you cannot do it. But they can't prove themselves truly and honestly professional pharmacists, and what is more, you can.

You are in direct communication with the doctors and patients. You can show that you can dispense their prescriptions, you can gain their confidence as to you ability and accuracy; you can show you are a pharmacist and not a merchant, pure and simple. They will then bring their prescriptions and buy what they need from you, and you will incidentally reap the harvest that is your due. That is why you should make a "specialty" of your store, and why you should practice a "specialty" as is done in other professions. Become a prescription specialist. Make your store look like a professional store, not a dry goods store, candy shop or patent medicine cut-rate establishment.

We pharmacists have been awakened from a long sleep and must be up and doing. Remember the story of the lion and the mouse. We must endeavor to put a net around the lion and then we can feel safe. We have taken the wrong step in our endeavor to compete with those who are trying to devour us. We imitate their methods. We try to do as they do. Gentlemen, we must not do this, for if we do, we will be signing our death warrants. We have neither the capital nor the facilities to follow in such a lead, but we have the brains, the knowledge to elevate ourselves far above the standard of the big stores today, by making our only "specialty"—and you know it is a paying one—dispensing. You will continue to sell all other things just as you have heretofore and if you should sell a few bottles less of some proprietary preparation, which is on our shelves and in our closets, you may be able to save a few dollars. Let the Blue Laws of our profession be revised. Let us be awake and looking toward the future. In fact the future is now very near, and we must be ready to face it, not as merchants, but as professional men.

RESINITE COMPOUND.

A NEW SUBSTANCE IN GERMANY REPLACING CELLULOID, IVORY, ETC.

Consul Thomas H. Norton, of Chemnitz, says that various art industries in Germany have found a number of useful applications for a newly invented substance, termed "resinite," of which he gives an account:

This material is produced in a variety of modifications by the union of formaldehyde and carbolic acid (phenol) in connection with certain metallic salts. The name is given on account of its resemblance in an important form to ordinary resin. This special variety is used chiefly with porous materials, such as wood, paper, pasteboard, etc., and renders them hard and impermeable. Thus ordinary pine wood when thoroughly impregnated, becomes so hard that it rapidly dulls a planer.

In another form it can be poured as a liquid into molds. After coagulation it is transparent, with ruby tint, infusible, and unaffected by ordinary chemical reagents. It is well adapted for making ornaments, such as hat-pin heads, imitation jewelry, and for most purposes where enamel or enamel varnish are employed. For doorplates, street numbers, signs, etc., it seems capable of rendering excellent service, being entirely unaffected by atmospheric action.

A third modification is liquid, but upon the addition of a mineral acid, it solidifies in a few minutes to an elastic, homogeneous substance, which can be easily cut, turned, polished, etc. In this form resinite can replace for a multitude of purposes, horn, celluloid, vegetable ivory, and similar substances. Buttons, knife handles, mosaic designs, are some of the many objects made with this modification. When competing with celluloid, it possesses the great advantage of being non-combustible. This property resinite shares in common with another industrial rival of celluloid, viz., cellit (described in Consular and Trade Reports in 1908).

There is a large field for this new material in the glove manufacturing sections of Germany, where at present clasps are made chiefly from vegetable ivory.

ALUMNI PIN.

Only graduates are permitted to purchase and entitled to wear this pin. It is distinct and different from a class pin, which can be worn by any member of a class. The pin is made of solid gold with blue enamel. Its style is shown on cover. Your name, year of graduation, and the pin number will appear upon the reverse side. The cost is $6 if delivered, or $6.15 if sent by registered mail. Pins may be obtained upon application to Dr. George C. Diekman, 115 West Sixty-eighth street, New York City.

E. MERCK'S ANNUAL REPORT.

We are in receipt of E. Merck's Annual Report for 1909; it deals with the most recent advances in Pharmaceutical Chemistry and Therapeutics, including Serum Therapy and Bacterio-Therapeutic Preparations, giving the preparation of drugs, as well as describing the various diseases, their symptoms and indications for treatment.

Merck & Co., 15 University Place, N. Y. City, will be pleased to send a copy, if there are any left, to any of our graduates or readers.

WHAT WAS THE MATTER WITH MOSES?

Percy—"Miss Jane, did Moses have the same after-dinner complaint my papa's got?"

Miss Jane—"Gracious me, Percy? Whatever do you mean, my dear?"

Percy—"Well, it says here the Lord gave Moses two tablets."—*November Lippincott's.*

our Soft-Mass Pills

DISSOLVE PROMPTLY IN THE DIGESTIVE TRACT

These pills are being widely prescribed. They are highly appreciated for their ready solubility, their keeping quality, their attractive appearance, their fidelity to formula. We are advertising them extensively to the medical profession. Pharmacists will do well to keep a liberal assortment on hand.

CHOCOLATE-COATED EXCEPT No. 892.

No. 892—Ferrous Carbonate (Blaud), 5 grs., round, uncoated.
No. 967—Cathartic Compound, U.S.P. Eighth Revision.
No. 968—Cathartic Compound, Improved.
No. 969—Quinine Sulphate, 2 grs.
No. 970—Cascara Compound No. 3 (Dr. Hinkle).
No. 971—Ferrous Carbonate (Blaud), 5 grs., U. S. P. Eighth Revision.
No. 975—Cholelith (round).
No. 977—Ferrous Carbonate (Blaud), Modified.
No. 981—Ferrous Carbonate (Blaud) Compound, ℞ "C."
No. 982—Ferrous Carbonate with Nux Vomica.
No. 983—Blaud and Strychnine Compound, ℞ "B."
No. 984—Aloin, Strychnine and Belladonna, ℞ "A."
No. 985—Aloin, Strychnine and Belladonna Compound, N. F.
No. 986—Cathartic Compound Granules, ¾ gr.
No. 987—Emmenagogue, Improved.
No. 988—Evacuant.
No. 990—Camphor, Opium and Lead Acetate.
No. 991—Camphor, Opium and Tannin.
No. 992—Opium and Camphor, N. F.
No. 993—Quinine, Iron and Zinc Valerianates.
No. 994—Quinine Valerianate, 2 grs.
No. 995—Salol, 2½ grs.
No. 996—Salol, 5 grs.
No. 997—Salol and Phenacetine.
No. 998—Warburg Tincture, N. F., representing ½ fluidrachm.
No. 999—Warburg Tincture, N. F., representing 1 fluidrachm.
No. 1000—Warburg Tincture without Aloes, N. F., representing 1 fluidrm.
No. 1001—Alophen.

In the soft-mass process no heat is applied, hence such volatile substances as camphor, the valerianates, the essential oils, etc., are preserved in full measure.

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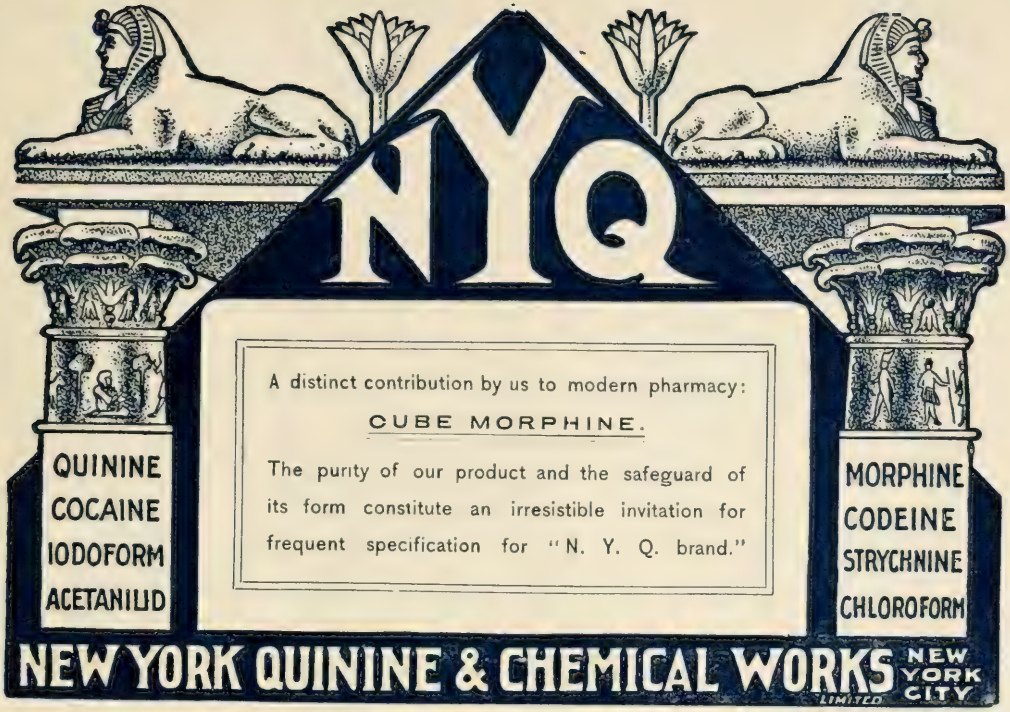

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